

This is a general account of the history and architecture of Crusader castles in the Kingdom of Jerusalem, County of Tripoli and Principality of Antioch between 1099 and 1291, the years during which the Crusaders had a permanent presence on the Levantine coast.

The book opens with a discussion of previous studies of the subject, and of fortification in western Europe and the Middle East before the Crusades. Subsequent chapters discuss the various types of castles built by the Crusader settlers, siege techniques and the ways in which castle builders tried to counter the improving technologies of attack, and the castles built after the disastrous defeat at Hattin in 1187 such as Crac des Chevaliers and Margat. Extensive use is made of contemporary chronicles to show the reasons why castles were built and how they were used in peace and war. The book is fully illustrated by photographs, drawings and plans, and contains a comprehensive bibliography.

VISIT...

LANZAROTE
Caliente.COM

CRUSADER CASTLES

CRUSADER CASTLES

HUGH KENNEDY

University of St Andrews



CAMBRIDGE
UNIVERSITY PRESS

CAMBRIDGE UNIVERSITY PRESS
Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo, Delhi

Cambridge University Press
The Edinburgh Building, Cambridge CB2 8RU, UK

Published in the United States of America by Cambridge University Press, New York

www.cambridge.org
Information on this title: www.cambridge.org/9780521799133

© Cambridge University Press 1994

This publication is in copyright. Subject to statutory exception
and to provisions of relevant collective licensing agreements,
no reproduction of any part may take place without
the written permission of Cambridge University Press.

First published 1994
Reprinted 1994, 1995
First paperback edition 2000
Fourth printing 2008

Printed in the United Kingdom at the University Press, Cambridge

A catalogue record for this publication is available from the British Library

Library of Congress cataloging in publication data

Kennedy, Hugh (Hugh N.)
Crusader Castles / Hugh Kennedy.

p. cm.

Includes bibliographical references and index.

ISBN 0 521 42068 8 (hardback) ISBN 0 521 79913 9 (paperback)
1. Castles – Latin Orient. 2. Architecture, medieval – Latin Orient.
3. Military architecture – Latin Orient.
1. Title.

NA1465.K44 1994
725'.18'09 560902–dc20 93-37701 CIP

ISBN 978 0 521 42068 7 hardback
ISBN 978 0 521 79913 3 paperback

Cambridge University Press has no responsibility for the persistence or accuracy
of URLs for external or third-party internet websites referred to in this publication,
and does not guarantee that any content on such websites is, or will remain,
accurate or appropriate.

CONTENTS

<i>List of illustrations</i>	<i>page</i> ix
<i>Acknowledgements</i>	xiii
<i>A note on names</i>	xv
1 Prologue to the study of Crusader castles	I
2 Fortification in the west and east before the First Crusade	II
3 Castles of the twelfth-century Kingdom of Jerusalem	21
4 Twelfth-century castles in the northern states (County of Tripoli, Principality of Antioch and County of Edessa)	62
5 Siege warfare in the Crusader lands	98
6 Nobles, Templars and Teutonic Knights in the thirteenth century	120
7 The Hospitallers in Tripoli and Antioch	145
8 Muslim castles of the twelfth and thirteenth centuries	180
9 Postscript: Crusader castles and the west	186
Appendix: <i>De constructione castri Saphet</i> (translation)	190
<i>Notes</i>	199
<i>Bibliography</i>	212
<i>Index</i>	217

For Xana, with love
to remind her of Syrian days

ILLUSTRATIONS

All the photographs were taken by the author.

PLATES SECTION

between pages 112 and 113

- 1 Belvoir, western moat looking north
- 2 Bourzey, general view from the southwest
- 3 Saone, great trench looking north
- 4 Chastel Pelerin, general view from the east
- 5 Chastel Blanc, donjon from the east
- 6 Crac des Chevaliers, general view from the southwest
- 7 Margat, general view from the south

BLACK-AND-WHITE PLATES

- | | | |
|----|---|----|
| 1 | Montreal (Shawbak): general view from the south | 23 |
| 2 | Li Vaux Moise (al-Wu'ayrah): general view from the north | 26 |
| 3 | Li Vaux Moise, showing the rock-cut gatehouse and the twelfth-century Crusader wall | 27 |
| 4 | Al-Habis (possibly Crusader Sela): general view from the east | 28 |
| 5 | Al-Habis: Crusader curtain wall | 28 |
| 6 | Al-Habis: curtain wall of lower bailey | 29 |
| 7 | Red Tower (Castrum Rubrum; Burj al-Ahmar): general view from the northwest | 35 |
| 8 | Caco (Qaqun): southeast corner of this ruined donjon | 36 |
| 9 | Chastiau dou Rei (Mi'liya): general view from northwest | 37 |
| 10 | Mirabel: general view from northwest | 38 |
| 11 | Mirabel: interior of courtyard looking northwest | 39 |

LIST OF ILLUSTRATIONS

12	Bet Shean (Beisan): general view from northwest	39
13	Beaufort (Qal'at al-Shaqif): from south	42
14	Beaufort: gateway to upper bailey from south	44
15	Kerak (Crac): general view from east	46
16	Kerak: east wall looking south	48
17	Kerak: north wall on the town side, looking east	49
18	Kerak: vaulted halls along inside of north wall	50
19	Kerak: embrasure and arrow slit in north wall	51
20	Belvoir: south moat and wall of outer enclosure looking east	59
21	Belvoir: west gate of inner bailey looking east	60
22	Tripoli: east wall looking north	64
23	Giblet (Jubayl, Byblos): general view from the west	65
24	Giblet: north wall of the bailey, looking east	68
25	Arima: general view from east	70
26	Arima: southwest tower of inner bailey, looking west	71
27	Chastel Rouge (Qal'at Yahmur): general view from southeast	73
28	Chastel Rouge: interior vault of keep	74
29	Burj al-Arab: general view from southwest	76
30	Burj al-Arab from east	77
31	Bourzey (probably Rochefort): general view from southwest	80
32	Bourzey: southern wall looking east	80
33	Bourzey: north side of tower 3 looking west	82
34	Bourzey: interior of upper floor of donjon/entrance tower	83
35	Saone (Sahyun, Qal'at Salah al-Din): general view from east	86
36	Saone: round tower on eastern curtain	89
37	Saone: tower on south wall from southeast	90
38	Saone: donjon from southwest, with tower 6 on right	91
39	Saone: interior of first-floor chamber of donjon	92
40	Saone: south curtain looking west from tower 6	93
41	Saone: vaulted shelter at southeast corner looking east	94
42	Saone: wall-head defences on tower, looking south	94
43	Sidon, sea castle: general view from southeast	121
44	Chastel Pelerin (Athlit): view from the old Templar tower at Le Destroit	125
45	Judin: view from the highest Crusader tower looking west	131
46	Tortosa (Tartus): eastern side of outer enceinte	134
47	Tortosa: surviving fragment of inner wall seen from interior	136
48	Tortosa: interior of chapel, south wall	137
49	Tortosa: donjon from the sea (west) side	138
50	Chastel Blanc (Safita): general view from southeast	139
51	Chastel Blanc: wall of hall from east	140
52	Chastel Blanc: window in south wall of donjon	141

LIST OF ILLUSTRATIONS

53	Chastel Blanc: window in south wall of church from interior	143
54	Chastel Blanc: interior of first-floor chamber from southeast	144
55	Crac des Chevaliers: general view from southwest, showing outer and inner enceintes	146
56	Crac des Chevaliers: tower at northwest of inner enceinte from west	152
57	Crac des Chevaliers: west wall of outer enceinte looking south	153
58	Crac des Chevaliers: tower and curtain on west wall of outer enceinte	154
59	Crac des Chevaliers: box machicolations on west wall of outer enceinte	155
60	Crac des Chevaliers: interior of box machicolation	156
61	Aleppo citadel: machicolation on south façade of entrance tower	157
62	Crac des Chevaliers: entrance tunnel	158
63	Crac des Chevaliers: south façade of inner enceinte from south	159
64	Crac des Chevaliers: southwest tower of inner enceinte, the 'Warden's Tower', from south	160
65	Crac des Chevaliers: western wall of inner enceinte from south	161
66	Crac des Chevaliers: entrance to inner court looking west	162
67	Crac des Chevaliers: interior of inner court, looking south	163
68	Crac des Chevaliers: gallery of the Knights' Hall looking south	164
69	Crac des Chevaliers: gallery of the Knights' Hall, detail	165
70	Crac des Chevaliers: interior court looking north from centre tower of south façade	166
71	Crac des Chevaliers: wall of centre tower of south façade facing onto court	167
72	Crac des Chevaliers: wall-head defences on south front of inner enceinte	168
73	Margat (Marqab): general view from southeast	169
74	Margat: western wall of castletown enclosure looking north	170
75	Margat: west wall of citadel looking north	173
76	Margat: east walls of citadel from the south	174
77	Margat: east wall of citadel looking north	175
78	Margat: west façade of chapel	176
79	Margat: thirteenth-century wall-head defences on northeast tower of citadel	177
80	Margat: vaults in citadel, east side looking north	179
81	Bosra, citadel: west side from southwest	183

LIST OF ILLUSTRATIONS

FIGURES

1	Li Vaux Moise: plan (A. Musil, <i>Arabia Petraea</i> , Vienna, 1907)	24
2	Red Tower: plan and section (D. Pringle, <i>Red Tower</i> , British School of Archaeology in Jerusalem, 1986, p. 126)	34
3	Beaufort: plan (W. Müller-Wiener, <i>The Castles of the Crusaders</i> , Thames and Hudson, London, 1966, p. 63)	41
4	Kerak: plan (Müller-Wiener, <i>Castles</i> , p. 47)	47
5	Belvoir: plan (M. Benvenisti, <i>Crusaders in the Holy Land</i> , Israel Universities Press, Jerusalem, 1970, p. 296)	58
6	Giblet: plan of ground floor (Müller-Wiener, <i>Castles</i> , p. 64)	66
7	Giblet: section of donjon (G. Rey, <i>Etude sur les monuments de l'architecture militaire des Croisés</i> , Paris, Imprimerie Nationale, 1871)	67
8	Arima: plan of upper bailey (Müller-Wiener, <i>Castles</i> , p. 53)	69
9	Chastel Rouge: plan and section (Pringle, <i>Red Tower</i> , p. 16)	72
10	Tukhlah: section (Rey, <i>Architecture militaire</i> , p. 101)	75
11	Coliath: plan (P. Deschamps, <i>Châteaux des Croisés en Terre Sainte</i> , Librairie Orientaliste Paul Geuthner, Paris, III, p. 311)	79
12	Bourzey: plan (Deschamps, <i>Châteaux III</i> , p. 347)	81
13	Saone: plan (Müller-Wiener, <i>Castles</i> , p. 44)	87
14	Saone, donjon: plan and section (Pringle, <i>Red Tower</i> , p. 19)	88
15	Sidon, sea castle: plan (H. Kalayan, 'The sea castle of Sidon', <i>Bulletin du Musée de Beyrouth</i> , 26 (1973), 84)	123
16	Chastel Pelerin (Athlit): plan and section (T. S. R. Boase, <i>Castles and Churches of the Crusading Kingdom</i> , Oxford University Press, 1967, p. 62, after C. N. Johns)	126
17	Montfort: plan and section (D. Pringle, 'A thirteenth century hall at Montfort Castle in Western Galilee', <i>The Antiquaries Journal</i> 66 (1986), p. 56)	130
18	Tortosa: plan (Deschamps, <i>Châteaux III</i> , p. 288)	133
19	Tortosa: section of walls (Rey, <i>Architecture militaire</i> , p. 73)	135
20	Chastel Blanc (Safita): section (Rey, <i>Architecture militaire</i> , p. 90)	142
21	Crac des Chevaliers: plan at ground level (Müller-Wiener, <i>Castles</i> , p. 61)	149
22	Crac des Chevaliers: reconstruction, from the northeast (Rey, <i>Architecture militaire</i> , pl. VII)	151
23	Margat: plan of citadel (Müller-Wiener, <i>Castles</i> , p. 57)	171
24	Margat: section of entrance tower (Rey, <i>Architecture militaire</i> , p. 22)	172
25	Margat: section of donjon and Tour de l'Eperon (Rey, <i>Architecture militaire</i> , p. 31)	178

ACKNOWLEDGEMENTS

My thanks go to many people who have helped and advised me in the preparation of this book and made it even more enjoyable. I am very pleased to have the opportunity to thank those who have enabled me to travel in the Levant over the last thirty years, to my parents who encouraged me to go, to the Cassels family who first introduced me to Crusader castles in 1964, to Professor Yoram Tsafir and the Institute for Advanced Study at the Hebrew University of Jerusalem whose invitation made it possible to visit many of the sites of the Kingdom and to Martin Randall Travel for enabling me to re-examine the castles in Jordan. I would also like to say how much I have appreciated travelling companions who have provided friendship and moral support while visiting obscure heaps of stones in hot and dusty places, to Sheila Taylor who risked life and limb climbing the outlying parts of the castle at al-Habis in Petra, to Lizzie Llewellyn and Maurice Howard for companionship and encouragement in Syria. I must also say a special thank you to my daughter Xana who persuaded me to complete the climb to Bourzey when the spirit was willing but the flesh getting a bit weak, and who provides human scale for the great needle in the moat at Saone and in other photographs. My thanks also go to Katharine, for the loan of photographic equipment. I should also acknowledge the friendly welcome I have received from so many of the local people in villages and castles throughout the area; whatever the political problems, the friendliness of the people has always encouraged me to return.

I owe a very particular debt to the group of scholars producing such important work on Crusader monuments at the British School of Archaeology in Jerusalem, to Richard Harper the Director and to Andrew Petersen for discussion of Judin and other monuments. Above all in this respect I must stress

ACKNOWLEDGEMENTS

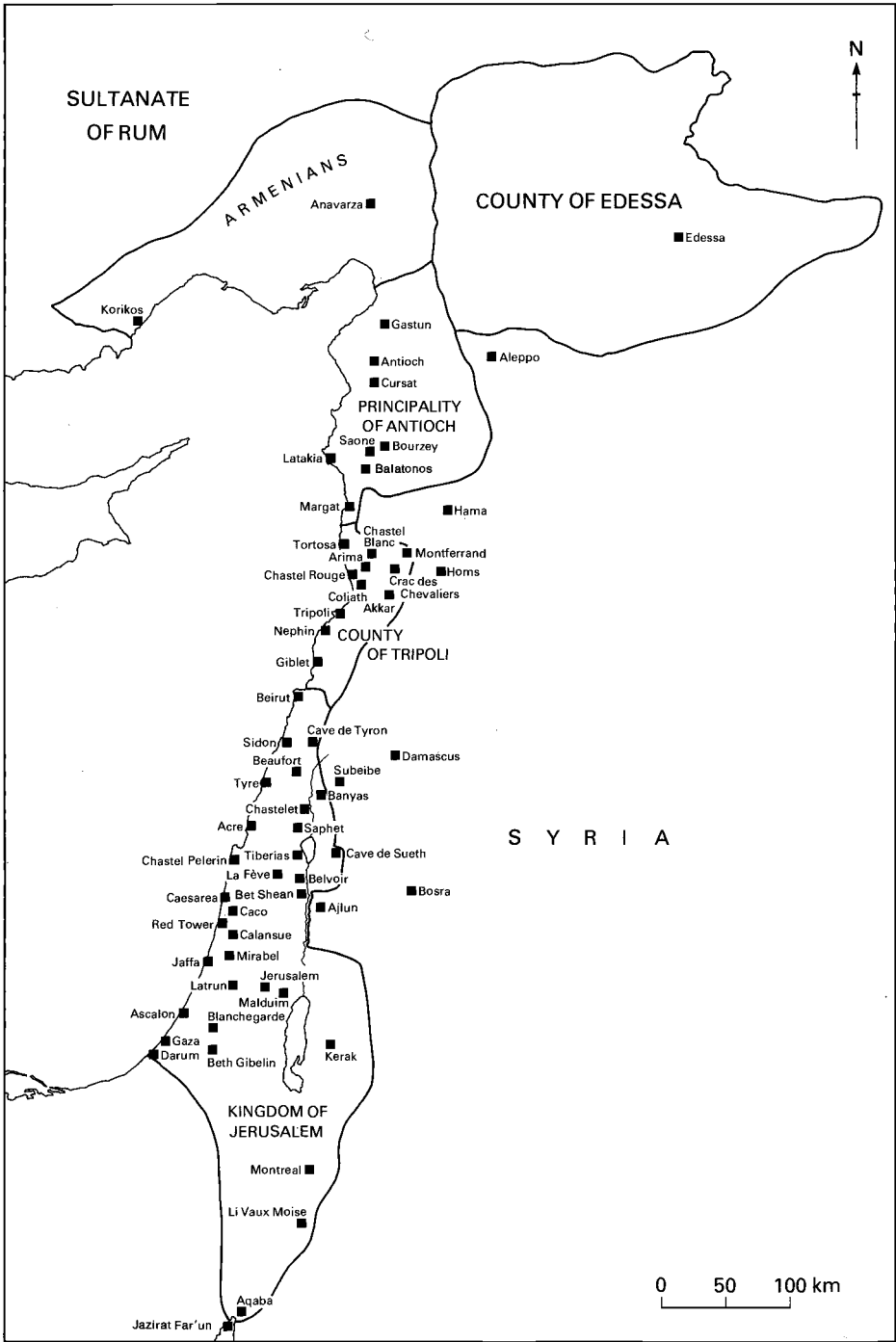
the debt I owe to Denys Pringle, now of Historic Scotland, for advice and help way beyond the normal limits of academic cooperation and for being extraordinarily generous with photographs and unpublished articles. None of them is responsible for the errors and eccentricities of this work but without their help it would certainly be the poorer.

The extracts from William of Tyre are taken from the translation by Babcock and Krey. In some cases I have supplied the Latin equivalent of technical terms and made some minor alterations on the basis of the new edition by R. B. C. Huygens.

I would also like to express my gratitude to colleagues at St Andrews University: to Robert Bartlett and John Hudson for advice about the *De constructione*; to the Photographic Unit who have been so efficient and friendly in preparing the photographs. I could not have revisited Syria or hired cars in Israel without the financial support of the Honeyman Trust of the University of St Andrews and I am very grateful to Bill Pagan for making this possible. I would also like to thank William Davies of Cambridge University Press for his support and advice. Last but not least I want to thank my wife, Hilary, for loving encouragement and tolerance of the monomania which has to afflict authors in the final stages of preparing a book.

A NOTE ON NAMES

Like the naming of cats, the naming of Crusader castles is a complicated problem. Most sites have at least three names, an Arabic one, a Crusader French one and a Crusader Latin one. Some, like Sidon, also have conventional English names while others, like Crac des Chevaliers, have French names which date from the nineteenth century. In general I have preferred Crusader French names but this does not solve the problems entirely. Crusader scribes were untroubled by the need for consistency: the word for castle itself is variously *chastel* or *chastiau* while the little keep I have called Calansue (Arabic Qalansuwa) is also recorded as Calanchun, Calanson, Calanthone, Calanzon, Calenchun, Calenson, Calenzon, Calenzun, Calumzum, Kalenson, Kalensuu and Kalensue in Crusader sources, and each one is as correct as any other. Sometimes I have used alternative names to avoid confusion: Kerak in Jordan I have referred to by the modern Arab name rather than the Crusader Crac to avoid confusion with Crac des Chevaliers. Bourzey was probably the Crusader Rochefort but I have used the Arabic to avoid uncertainty. This has led to a certain arbitrariness in the choice of names but I am not convinced that there is any satisfactory alternative and I hope readers will bear with me.



I

PROLOGUE TO THE STUDY OF CRUSADER CASTLES



THE memory of the Crusader occupation of the Levant did not die when the last Franks were driven from the Holy Land in 1291. The ideal of crusading remained alive into the fifteenth century and revived, in a rather different form, with the sixteenth-century wars between the Habsburgs and the Ottomans. Memories of lands held and lost were kept alive in Du Cange's *Lignages d'Outremer*, and the Cartulary of the Knights of St John survived as a witness of the properties they had once held. Even today there is a titular king of Jerusalem.

Nonetheless, acquaintance with surviving Crusader monuments was increasingly rare. The pilgrims of the late Middle Ages were concerned with finding the Holy Places not the traces of Frankish occupation, and the travelers of the seventeenth and eighteenth centuries, when they noticed ancient monuments at all, devoted their attention to Roman antiquities. It is especially frustrating that we have no detailed descriptions of Crusader castles before the Palestine earthquake of 1837 which did such damage at Chastel Pelerin and Saphet and the contemporary campaigns of Ibrahim Pasha in 1840 which resulted in extensive damage to Sidon, Chastel Pelerin, Saone and Antioch among others.

The scientific examination of Crusader castles was pioneered by Emmanuel Guillaume Rey (1837–1916). Rey's work was the product of a growing French interest in the Crusades in the first half of the nineteenth century. This had been stimulated by the publication in 1822 of Michaud's *Histoire des Croisades* and in 1829 of the same author's *Bibliothèque des Croisades* which included translations of Arabic chronicles by M. Reinaud.¹ The availability of Crusader texts improved further with the publication of the *Recueil des historiens des Croisades* under the auspices of the prestigious Académie des

Inscriptions et Belles-Lettres, which began in 1841 though it was not finally completed until 1906.²

The study of the Crusades became at once a scientific discipline and a patriotic duty, since, of course, the vast majority of the Crusaders came from France and French interest in Syria was rapidly growing. Disputes over the protection of Christian churches in the Holy Land had been the ostensible reason for the outbreak of the Crimean War in 1854. Concern about the fate of local churches reached fever-pitch after Christian-Muslim violence in the Lebanon and the massacre of Christians in Damascus in 1860; the press called for Syria to be occupied by the French and the government of Napoleon III showed considerable interest. In this climate, a scholar who showed how lords from Champagne, Burgundy and the Ile de France had once ruled in Syria, and had, furthermore, left magnificent castles to prove it, was sure of a ready hearing.

The other important intellectual influence was the growing interest in medieval archaeology and warfare. The Emperor himself caused a replica trebuchet to be constructed to investigate the power of medieval artillery. The principal authority in France was the architect and historian, Eugene-Emmanuel Viollet-le-Duc (1814–79). Both as scholar and as restorer, he presented his ideas with clarity and conviction (even if he did not show the restraint and self-questioning now considered desirable in these callings), and he drew like an angel. In his *Essai sur l'architecture militaire au moyen-âge* (1854)³ Viollet-le-Duc had produced the first sustained discussion of the development of medieval fortification from late Roman times to the fifteenth century, complete with plans, line drawings and discussions of siege warfare. Castle studies were now scientifically respectable and had an intellectual framework in which to develop.

The first important work on the Crusader archaeology of the Holy Land was de Vogüé's *Les Eglises de la Terre Sainte*, published in the same year as the massacres of the Christians, 1860.⁴ The Marquis Melchior de Vogüé (1829–1916), scion of an ancient and distinguished French aristocratic family, was an elder contemporary and friend of Rey's. His work showed that a number of churches from the Crusader period survived and that their architecture was based on medieval French styles, affirming the antiquity of France's position in the area. De Vogüé went on to produce his *Syrie centrale* in 1868 in which he revealed, for the first time, the great richness of late antique architecture to be found in the interior of Syria.⁵ He later became French ambassador to Constantinople and Vienna but he never lost his enthusiasm for the Crusaders: in 1873, as ambassador to Constantinople, he secured French possession of the fine twelfth-century church at Abu Ghosh⁶ and later became one of the founders and editors of the *Revue de l'Orient Latin*.

Rey's life is something of a mystery. Henry Bordeaux, writing in the 1920s, found that he had already disappeared almost without trace.⁷ He seems to have been a gentleman of means with aristocratic pretensions and properties around Le Mans and Chartres, where he was a member of the local Société Archéologique. How he became interested in the Crusader east is quite unclear but he travelled extensively in the Levant as a young man. There is a hint that he had government support but he may well have been simply a private scholar. He made three journeys to Syria between 1857 and 1864, visiting almost all the major fortifications except those in the lordship of Oultrejourdain. He developed twin interests in Crusader genealogy and military architecture which were to last all his life. In 1869 he produced his edition of Du Cange's *Familles d'Outremer*⁸ and so laid the foundations for the study of Frankish genealogies, and in 1871 he published his *Etudes sur les monuments de l'architecture militaire des Croisés en Syrie et dans l'île de Chypre*.⁹ Looking at this ancient volume, it takes something of an effort of imagination to realise how pioneering a work it is. Viollet-le-Duc's *Architecture militaire* is innocent of all knowledge of Crusader fortification. Rey had virtually nothing to go on except a few narrative accounts of medieval chroniclers and pilgrims yet he identified, planned and drew almost all the most important monuments including such complex structures as Margat and Crac des Chevaliers. Of course much of his work has now been superseded: the proportions of some of his plans, like Saone for example, are clearly wrong, and excavation has revealed much more about Chastel Pelerin than he was able to guess. Yet some of his drawings, like the section of the keep at Chastel Blanc for example, have never been surpassed for elegance and clarity and he preserves details long since gone, like the appearance of Crac des Chevaliers before the Syrian villagers occupied it. When Deschamps began his investigations at Crac in 1927, he and the architect François Anus, with whom he was working, used Rey's drawings as their starting point and designated the towers with the same letters as he had.

He never returned to Syria but went on to write his *Les colonies franques de Syrie aux douzième et treizième siècles* (1883),¹⁰ part history and part gazetteer, another pioneering work, and continued to produce articles on Crusader genealogy and lordships until 1900. After that he seems to have retired into rural obscurity. He never held a formal position or membership of any prestigious academy. Profound deafness following an accident increased his isolation and his death in 1916 was not noticed in any obituaries, but his work survived to inspire subsequent generations of scholars in France and abroad long after the writings of his more honoured contemporaries were forgotten.

The late nineteenth century saw a considerable amount of survey work, mostly in Palestine. In the main, these surveys were more interested in the biblical and classical past but Crusader remains were recorded where they

occurred. The most far-reaching of these was C. R. Conder and H. H. Kitchener, *The Survey of Western Palestine: Memoirs of the Topography, Orography, Hydrography and Archaeology* (1881–3).¹¹ As the catch-all subtitle suggests, this was intended as a general survey of the area. In the 1870s and 1880s, Charles Clermont-Ganneau (1846–1923) produced a considerable volume of work on Crusader remains, including a fundamental account of masonry marks.¹²

In 1895 the Swiss Orientalist Max van Berchem (1863–1920) and his companion Edmond Fatio undertook an expedition to northern Syria covering the area between Aleppo and Tripoli. The stated objective was to acquire inscriptions for van Berchem's *Corpus inscriptionum arabicarum* but, besides being a brilliant epigrapher, van Berchem also had an enquiring mind for archaeology and history. As well as recording the Arabic inscriptions found at many Crusader sites, including Crac des Chevaliers, he also published a wealth of more general archaeological detail and some important Arabic texts describing the eventual taking of these castles by the Muslims. The discussions of Crac des Chevaliers and Margat, as well as smaller sites like Coliath, are still of considerable value.¹³

In 1909 T. E. Lawrence (later famous as Lawrence of Arabia) visited many of the Crusader castles of Syria on foot, though he never visited Oultrejourdain: ironically, in view of his later military exploits, he only failed to reach 'Amman in Oultrejourdain because of 'the unthinking activity of some local Bedawin in tearing up the Hedjaz railway'.¹⁴ His *Crusader Castles* (now republished with an excellent preface and additional notes by D. Pringle) was only an undergraduate dissertation. It is full of ideas and opinions, notably on the relationship between Crusader castles and those in western Europe (which he knew from lengthy bicycle trips around France in the previous two years). He stressed the western nature of Crusader architecture and discounted Byzantine or Muslim influence. The photographs are interesting but the plans are all based on Rey or the unpublished sketches of Pirie-Gordon. As an undergraduate dissertation it is excellent, and tribute to both the intelligence and endurance of its author. To be fair to Lawrence, he never intended it for publication in its present form so it would be wrong to place much emphasis on its scholarly imperfections.

The next major boost for the study of Crusader castles was provided by the establishment of the French Mandate in Syria in 1921. This led to the setting up of a French administration in Syria and Lebanon with an antiquities service. It also meant that archaeologists could count on government support, up to a point, for supplies, equipment and aerial photography. The mandate may not have been a happy period politically but it saw an unparalleled explosion of archaeological activities, among them the excavations at Ugarit and Byblos, the aerial survey of the Roman desert frontier by Poidebard and the

study of the antique villages of the limestone plateaux of the north by Tchalenko. Crusader studies too benefited from this interest, especially as the presence of Franks in the area in the twelfth and thirteenth century could give a sort of legitimacy to their presence in the twentieth.

This activity was presided over by a pupil of Clermont-Ganneau's, René Dussaud (1868–1958). The classic figure of an old-school French academic with his close-cropped hair, toothbrush moustache and gold-rimmed pince-nez glasses, Dussaud had begun his career as an engineer but, after a visit to Smyrna, had become fascinated by the antiquities of the Levant. He travelled extensively in Syria before the First World War and returned to Paris where he eventually became head of the Department of Oriental Antiquities at the Louvre. Here he constantly encouraged expeditions to the Middle East and, in 1920, he was one of the founder editors of the periodical *Syria* in which so many of the results of this activity were published. In 1927 he published his *Topographie historique de la Syrie antique et médiévale*,¹⁵ a fundamental contribution to historical geography.

The first major publication of Crusader antiquities was a direct result of this patriotic urge: 'The war of 1914–1918', wrote Deschamps, 'brought our troops to those shores where so many good Frenchman had previously fought.' In this spirit, General Gouraud, the first Haute-Commissaire in Syria and Lebanon, invited Camille Enlart to record the Crusader monuments. Enlart (1862–1927) had the right qualifications. Apart from his work on medieval French architecture, he had, in 1899, produced his *Art gothique et de la Renaissance en Chypre* which had showed how French art had spread in the Eastern Mediterranean. Enlart investigated the ecclesiastical monuments of the Crusader Levant which were published as *Les Monuments des Croisés dans le royaume de Jerusalem: architecture religieuse et civile* (1925).¹⁶ He had intended to move on to cover the military architecture as well but in February 1927, at the height of his powers, he suddenly dropped dead in a Paris street.

Only a few days later, Dussaud entrusted the task of completing Enlart's work to a pupil of his, the young Paul Deschamps (1888–1974) who was to be the greatest of all students of Crusader castles.¹⁷ Deschamps had been educated in the Ecole des Chartes and had specialised in medieval French art and architecture. He had never, it seems, taken any particular interest in the Middle East before but by December of that year he, the architect François Anus and an army officer called Frederic Lamblin, who acted as photographer, were ensconced in a small and bitterly cold chamber in a tower of the inner court at Crac des Chevaliers. Here they remained until March, exploring, drawing and photographing: Lamblin's pictures of Crac in the snow survive to show how bleak it was.

Deschamps' mission was to investigate all the castles of the Crusaders and he began with the finest of them. Crac became a much bigger project than he

had previously anticipated. Since Rey had visited, a village of some 500 people had been established inside. While the basic structure remained largely intact, the villagers had destroyed much of the crenellation and the vast underground vaults were almost completely full of rubbish. Anus and Deschamps began clearance work on a small scale but it soon became apparent that this was a major undertaking. Fortunately two army inspectors came to look at the work with the result that General Gamelin assigned a detachment of sixty Alawite soldiers of the Armée du Levant, commanded by a French lieutenant called Poussin, to help with the work; in the old photographs, they stand there smartly in their shakoes, military tunics and long puttees, probably completely mystified about the purposes of their labours and the mad ways of the foreigners. The work was continued when Deschamps returned from France again in the spring of 1929 when he had another season with Anus and Lamblin. Numerous discoveries were made as a result of the cleaning, including wells and ovens hitherto completely covered. There remained, however, the question of the villagers whose houses prevented any overall appreciation of the architecture. Inevitably too, the building and extension of the houses was damaging the fabric of the castle.

In 1929 the Haute-Commissaire Ponsot suggested to Deschamps that the castle should be taken under the care of the French Administration des Monuments Historiques. With the support of Dussaud in Paris and a motion in the French Senate, Crac was finally ceded to France on 16 November 1933 and placed in the charge of the Beaux-Arts. The State of Lattakia, from whom the purchase was made, was paid a million francs to compensate the inhabitants. The villagers were then moved out and a work force of 120 spent two years cleaning up and restoring the fabric. The castle, meticulously restored, joined Palmyra, Baalbek and Qal'at Sim'an among the great tourist attractions of the French Levant. As Deschamps wrote in the spirit of the time, 'Crac des Chevaliers, which is so closely linked to the history of our country, should attract numerous French [visitors] because of the memories it evokes.' All these arrangements came to an end with Syrian independence in 1946 but the castle remains much as they left it, in a sense a memorial to both the crusading Franks and the twentieth-century French.

An equally impressive memorial is Deschamps' book *Le Crac des Chevaliers* (Paris, 1934) which formed the first volume of his trilogy *Les Châteaux des Croisés en Terre Sainte*. With Anus' meticulous plans and drawings, Lamblin's photographs and Deschamps' careful descriptions, it has claims to be the finest monograph ever produced on a single medieval castle.

Deschamps did not restrict his investigations to Crac des Chevaliers. In 1929 when he was still busy at Crac he visited Beaufort in Lebanon, Chastel Pelerin in Palestine and Kerak in Jordan, where Anus produced the first accurate plan of the castle, a plan which has served as the basis of all subsequent

ones. In 1936 Deschamps made another extensive trip accompanied this time by the architect Pierre Coupel (1899–1983); with the aid of sixty-five soldiers from the Chasseurs Libanais, led by Commandant Bigeard, they cleared much of the inner court and donjon at Beaufort. Deschamps left Syria in 1936, never to return, but Coupel remained in Syria until 1946, making new discoveries at Saone and undertaking extensive repairs at Chastel Blanc (Safita) where the great tower was in serious danger of collapse.

Deschamps produced two further volumes. The first of these, *La Défense du Royaume de Jerusalem* (Paris, 1939), deals with a number of major castles, including Kerak, Subeibe (which he believed to be Crusader) and Beaufort, where his descriptions and plans record a building which has probably been mutilated beyond recognition by recent military activity. He also recorded the two cave castles at al-Habis Jaldak and Tyron but many lesser monuments were not noticed and, for all its interest, it remains a very partial record. It was not until 1977, three years after the author's death, that the final volume, *La Défense du comté de Tripoli et de la principauté d'Antioche*, appeared. It was almost forty years since Deschamps had visited the castles he describes and the descriptions lack the clarity and immediacy of his earlier work. Some sections, like the plan of Margat, are confused and inadequate, there is no plan of Akkar, and the description of Bourzey clearly shows that the author had never visited it. He compensates for this thinness by producing a long historical section on the northern Crusader principalities. Despite its shortcomings, however, the work remains fundamental and the discussion of the major monuments at Giblet (Byblos), Chastel Blanc and Saone are of the usual high standard.

Deschamps remained a Parisian all his life. He examined the Crusader castles as he might have done the châteaux of the Loire. He seems to have had no interest in Muslim fortifications of the period and obviously felt that the independent Syrian Arab Republic was not a congenial place to work in; for men like Dussaud and Deschamps, the loss of the Syrian Mandate must have meant the end of so many of their dreams, but his observation, his scholarship and his enthusiasm remain unsurpassed.

Perhaps because the surviving monuments were so impressive, neither Deschamps nor his contemporaries under the French Mandate undertook any archaeological excavation of Crusader sites (except incidentally at Byblos, where the excavator, Dunand, was largely concerned with the ancient city). In Palestine, where the castles were much less well preserved, the Department of antiquities of the British Mandate government sponsored an excavation at Chastel Pelerin, conducted by C. N. Johns between 1930 and 1934.¹⁸ Chastel Pelerin had been severely damaged by natural causes and the activities of Ibrahim Pasha who removed much of the masonry. Earlier commentators, including Deschamps, had been unable to make much of the interior. Johns'

excavations recovered the foundations of an elegant polygonal chapel and he also explored the small town outside the castle, but from the point of view of the historian of military architecture the most important result was the reconstruction of the main defences which shows just how much can be learned by careful exploration of apparently ruined and formless lumps of masonry. Unhappily, Johns was never able to produce a full publication of his researches which would certainly have amounted to a significant monograph.

The Second World War saw the end of this very productive period in the study of Crusader castles. In independent Syria there was little money for archaeology and Crusader studies were not really a priority even for what there was. Only Gabriel Saadé produced important articles on Bourzey and the 1188 siege of Saone. In Israel, however, an active school of Crusader historians developed under the leadership of Joshua Prawer. This school is much concerned with Crusader settlement of all sorts (rather than purely with military architecture). The most important new discoveries were made with the excavation of the castle at Belvoir by the Israel Department of Antiquities between 1963 and 1968. This revealed a very much more complex structure than the rather simple enclosure imagined by Deschamps¹⁹ and others. The emergence of a wholly unsuspected castle showed that the military architecture of the first kingdom was more developed than many had imagined and a single excavation proved the theorists wrongs.

Recently the most important advances in our knowledge have come from the archaeological explorations including the surveys of the smaller castles of Oultrejourdain by Luigi Marino and others.²⁰ The most important of these have been the excavations conducted by the British School of Archaeology in Jerusalem, led by D. Pringle and R.P. Harper. This work has concentrated more on the surveying and recording of minor structures than on the excavation of major monuments but the results have been extremely impressive. Pringle's excavation at Red Tower and the survey of the surrounding Crusader remains in the lordship of Caesarea show just how extensive are the traces of Crusader occupation and how much can be learned from the careful excavation of an apparently unpromising site.²¹

After more than a century of investigation, there are still many areas which invite further investigation. There is certainly more to be learned about the smaller castles of the twelfth-century Kingdom of Jerusalem. The same also applies to the County of Tripoli. Political problems in Lebanon have prevented any comprehensive investigation but it is clear from notices in the older sources (Rey, van Berchem and Deschamps) that there is a considerable number of sites which are probably the remains of small twelfth-century castles and we may find a pattern of occupation not unlike the settlements being revealed in the Kingdom of Jerusalem. Another area where more research will undoubtedly yield important results is in the study of siege war-

fare.²² Forty years ago, R. C. Smail held that military techniques changed little in the crusading period and siege warfare as such did not merit a separate chapter in his *Crusading Warfare*. Recently C. Marshall in his *Warfare in the Latin East, 1192-1291* has devoted more space to the subject but, again, without discerning much development. A radically different point of view is put forward by P. Cheveddin, basing his work on newly discovered Arabic sources. He suggests that the end of the twelfth and the beginning of the thirteenth century saw a radical improvement in the capabilities of medieval artillery which in turn led to marked changes in castle building. If this is correct, then the Crusader castles of the thirteenth century will need to be re-examined.

With the exception of the castles of medieval England, Crusader castles have been subjected to more intensive research than any other area of medieval military building. This is partly due to patriotic and romantic enthusiasms but partly too to the nature of the material. In a sense, Crusader castles are more purely military than their western counterparts which served as residences and administrative centres as well. In the Levant, castles had to be able to defend themselves against the most advanced siege techniques of the day and both thought and energy were devoted to improving them. Castle builders in western Europe could usually afford to take a more relaxed view and take into consideration non-military factors. The castle scientifically designed as a fighting machine surely reached its apogee in great buildings like Margat and Crac des Chevaliers.

We also have unique literary sources to people these monuments. It is true that we lack accounts and other administrative documents: we shall never be able to find out how many masons were employed or how much crossbowmen were paid as we can in England. On the other hand, we have chronicle accounts of how castles were used in warfare which have no parallel in the west in this period. Latin chroniclers like Fulcher of Chartres and Arabic ones like Baha al-Din and Abu Shama show castles in action but it is above all the work of William of Tyre which is so valuable. He describes the building of castles and what the builders hoped to achieve by their labours, and his vivid accounts of sieges and assaults bring to life the physical dangers and psychological stresses of castle warfare. If we want to understand these monuments, we must interrogate, as far as possible, those who constructed and used them, and the study of Crusader castles provides a unique opportunity for doing so.

It may well be objected that this study amounts to the celebration of an ancient and discredited imperialism and that modern scholars are heirs of those Frenchmen who sought a justification for present policies in the Crusader past. This is not the sense in which this book, or other modern scholarship, is offered. The writer who investigates, and even celebrates, the achievements of the Crusaders does not in doing so suggest that they are a model to

CRUSADER CASTLES

be emulated, any more than the Arabs who rightly extol the palaces and gardens of al-Andalus are seriously claiming that they should reconquer Spain and Portugal. There is something fascinating and frequently moving about forlorn and failed enterprises, those 'old, forgotten, far-off things and battles long ago', however perverse they may now seem. It is impossible for me to stand on the windswept battlements at Crac des Chevaliers, climb to the remote crags of the fortress overlooking Petra or explore the magical stillness of the deserted valley by Bourzey, without feeling a potent mixture of admiration and nostalgia which breathes excitement and emotional commitment into scholarship.

FORTIFICATION IN THE WEST AND EAST BEFORE THE FIRST CRUSADE



THE men and women who came on the First Crusade and subsequently settled in the Levant came from areas which were already rich in castles and all of them would have been brought up in or near one.¹ When they set about constructing fortifications to secure their new domains in the east, it was natural that they should draw on the experiences of their homelands.

In early medieval and Carolingian times, fortifications in western Europe had for the most part been public or group strongholds, built for defence by and protection of comparatively large numbers of people. The most obvious examples of these were the Roman walls, which still encircled many of the small cities of the time. The legacy of Roman military architecture in the west was much more obvious to eleventh-century men than it is to us today and they did not have to look to North Africa or the Middle East to see examples of the classical tradition; they only had to look at the walls of Senlis, Le Mans or Pevensey to see high stone walls with projecting towers ranged at intervals along them.

New fortifications were also constructed in these centuries. In many cases these were promontory forts, where the man-made defences cut off a natural promontory, either on the coast, or overlooking a river valley or simply on a spur of a hill. Frequently such promontory forts were defended by one or more earth banks and ditches but stone walls were not unknown.

From the early seventh century these large-scale fortifications were gradually supplemented and replaced by castles with a much more restricted perimeter, built to house the lord or castellan and his immediate household and designed to be defended by a very small number of soldiers. These

new-style castles took a wide variety of forms. The best-documented and most studied ones come from western France, especially Normandy, where M. du Bouard and his colleagues have subjected them to a detailed investigation, and England. Eleventh-century Normandy saw the development of two distinct types of castle, the motte and bailey and the enclosure castle, which could be a ring-work or a promontory fort. These castles were, almost without exception, constructed in earth and crowned with a wooden palisade. The relationship between the two forms is a matter of some dispute but it seems likely that the motte became common only in the mid-eleventh century around the time of the Norman conquest of England and perhaps as a consequence of it.

Although few people from England joined the First Crusade, the castles of the Norman Conquest are of considerable interest because, like the Crusader castles in the Levant, they were built by an alien, occupying military aristocracy in a hostile environment. The invaders seem to have introduced all the various forms of fortification known in their continental homeland. There were halls defended by earth embankments of greater or lesser strength (Castle Acre, Chepstow), and motte and bailey castles (York, Carisbrooke, Hen Domen and numerous others). Another common pattern in the earliest days after the Conquest was the enclosure castle: there are the excavated earth promontory fort at Castle Neroche, subsequently converted into a motte and bailey castle, and, in stone, the early enclosures at Richmond, Ludlow and Rochester where the great keeps so distinctive a feature today, are twelfth-century additions. There were also, of course, the two great tower palaces raised by the Conqueror himself in London and Colchester but these were exceptions without either parallel or progeny.

South of Normandy, in Anjou and Poitou, the emergence of castles took a different form, that of the great stone tower, either square or oblong in plan and decorated by flat or semi-circular buttresses. Traditionally the earliest of these is said to be the example at Langeais constructed by Fulk Nerra in 994 but in plan this is more like a hall than the classic donjon which seems to appear at Montbazou in 1017. The great stone tower became the characteristic fortification of these areas, spreading north into Normandy and England in the twelfth century.

Other areas had their own distinctive traditions of military architecture. Many of the original settlers in the Kingdom of Jerusalem came not from western France but from Lotharingia in the northeast and areas linked by ties of vassalage or alliance to the house of Bouillon either side of the modern French-Belgian border. If we try to determine the types of castle being built in these areas in the late eleventh century, we find a very different picture from Normandy. Mottes are virtually unknown and stone keeps, where they do occur, do not have the dominant role we find in Anjou and Poitou. The

best-preserved castles from Lotharingia are all on natural elevations, hills or ridges and use the terrain as an integral part of their defences.

The castle at Bouillon itself, family home of Godfrey and Baldwin I, the first two Crusader rulers of Jerusalem, has been much rebuilt since the eleventh century but the site shows that it extended along a ridge overlooking the river Semois. A study of four castles along the Meuse valley between Nancy and Metz, Vaudémont, Mousson, Prény and Dieulouard,² shows that all four of them were built on ridge or hill-top sites above the river valley. Unfortunately it is very difficult to date the existing remains with any confidence but we can probably make some observations about their design at the time of the First Crusade. They are all enclosure castles varying in size from Vaudémont, which is about 500 m long by 250 m wide at its greatest extent, to Dieulouard where the existing perimeter is less than 100 m across. All four had donjons as the centre point of their defences and in the case of Vaudémont, Mousson and Prény these donjons were part of an inner citadel, separated from the main area of the castle by ditches or an inner wall. The best preserved of these donjons is the one at Vaudémont, the so-called Tour Brunehaut, which is rectangular and without buttresses and probably dates from the late eleventh century but might be earlier.

Further evidence can be found in a study of castles in the Liège area.³ Two of these, both belonging to the bishops, the neighbours and rivals of the house of Bouillon, are of special interest. Chèvremont, about 10 km to the southeast of the city, was a large enclosure castle, about 5 hectares in area, with a central strong point, though no donjon, and square towers along the outer perimeter. It is noted from the eighth century but seems to have been destroyed in 987 and not rebuilt. In the eleventh century we can see a different style of castle at Franchimont, built on a hill-top to replace a low-lying Carolingian palatium at nearby Theux. Eleventh-century Franchimont is much smaller and more compact than nearby Chèvremont, an oblong enclosure no more than 54 × 26 m with a projecting donjon at one end. This donjon is of three stories, the middle one of which provided the principal accommodation, and has no buttresses. The water supply was provided by a cistern in the centre of the court. While the donjon was important, it does not seem to have dominated the other buildings as the donjons of the west of France did and it was only one element in a compact courtyard plan.

Other areas of France show a similar variety of plan. In Champagne, with its flatter and more open landscapes, eleventh-century fortified sites are divided between mottes in low-lying areas and spur or ridge castles where they were possible.⁴ In Provence, mottes, little enceintes and spur or ridge castles are also known from this period.⁵

Another land which should concern the history of Crusader castles is the Norman Regno of southern Italy and Sicily, not only because the Normans

here, as in England, were alien conquerors imposing their will but also because Normans from southern Italy were the main settlers in the principality of Antioch. At present, however, little is known of early Norman castles in this area: scholarly attention has concentrated on the garden palaces of the twelfth century around Palermo and on the magnificent castles built by Frederick II in the early thirteenth century. In most cases the Normans used existing fortifications, especially in towns, but there are some small Norman castles with stone donjons. A small-scale investigation of three sites in Sicily suggests that some of these were quite simple structures.⁶ There were earth mottes in a recognisably Norman style (Petràlia Soprana) while elsewhere a rock platform was shaped into a sort of motte carved from the living rock (Sperlinga). A substantial motte, now crowned with a later round tower, was built by Robert Guiscard at San Marco Argentano near Cosenza.

Even a brief survey of this nature shows clearly that the Crusaders who came to settle and build in the Levant had experience of a large number of different castle types in their homelands. Furthermore, they were used to adapting designs to local terrains. They needed no eastern masters to show them how to build a curtain wall along the crest of the ridge or to separate an inner redoubt by walls and ditches from an outer bailey. But this did not mean that they had nothing to learn from eastern techniques.

The walls of Constantinople must have presented an overwhelmingly impressive spectacle to the arriving Crusaders. Even today in their dilapidated state they show the scale and logic of late antique military science and when they were complete with counterscarp, ditch and outer wall, all dominated by massive height and towers of the inner wall, they must have been even more imposing. We know too that the leaders of the First Crusade saw these walls, but whether they were influenced by them when building their own fortifications is another matter. The scale was too vast for the needs and resources of the early twelfth century. Furthermore, the main part of these walls was more than six centuries old and the engineers who had designed and built them were long since gone. Eleventh- and twelfth-century Byzantine military architecture was very different in scale and achievement.⁷

The Crusaders soon acquired bitter experience of other Byzantine fortifications. From 6 May to 19 June 1097, the army of the First Crusade had besieged the city of Nicaea, then in Turkish hands but protected by defences built when the city was under Byzantine rule. The city walls were about 5 km long, a single line (at this time) with frequent interval towers projecting boldly from the curtain. Though much of this length must have been very thinly garrisoned, the Crusaders could make no real headway. When they attempted to undermine one of the towers, the result was a fiasco and the damage easily repaired. In the end the garrison gave up hope of relief and surrendered peace-

fully to the Emperor Alexios Komnenos and the Crusaders had to rely on his generosity for supplies and money.⁸

Even more discouraging were the walls at Antioch which kept the army at bay from 20 October 1097 to the beginning of June 1098, a long, hard winter siege which was the crisis of the First Crusade and almost led to disaster.⁹ The city walls, which have now almost completely disappeared, had been built in antiquity and restored by the Byzantines after they had retaken the city in 969 when the citadel on Mount Silpius, overlooking Antioch, was constructed. While it did not boast triple lines of defence like the Theodosian walls of Constantinople, the wall was high and supported by numerous square and polygonal towers in which the defenders could live and from which they could overlook the attacking army. The Crusader army could make virtually no impact on these defences and the city only fell through treachery when a member of the garrison allowed the Franks to erect ladders by night against a section of the wall and climb in. Again the Crusader army had been shown the military value of Byzantine fortifications.

Like the walls of Constantinople, the extent and scale of the fortifications of Antioch were a product of late antique planning, not of contemporary Byzantine practice. From the seventh century the Byzantine empire underwent a number of major transformations, one of which seems to have been a dramatic decline in the population and size of cities. The vast defensive scheme of late antiquity were no longer appropriate. Especially in Anatolia where Muslim raids threatened the security of rich and poor alike, the population had come to group themselves around fortified citadels usually perched high on hills or ridges, to which they could retreat in times of trouble. One of the best surviving examples of these is the citadel at Ankara rebuilt in the early ninth century.¹⁰ It crowns a steep ridge on whose slopes the medieval settlement clustered and it consists of an upper and lower bailey sharing a common wall on one side. There is no donjon but the most noticeable defensive features are the frequent and massive interval towers which project boldly from the walls. Many of them are constructed with re-used antique masonry and they come in different shapes, mostly square but there are also round and prow-shaped examples.

There were also Byzantine castles which were later adapted by the Crusaders for their own use. The Byzantine reconquest of Antioch and the mountainous areas of northern Syria which are bounded by the Orontes to the east, the Homs-Tripoli gap to the south and the Mediterranean to the west from 969 onwards led to a spate of castle building to secure the newly won areas. Little of this building survives and still less has been explored but it seems that the Byzantines concentrated on establishing small but well-fortified strong points, similar in area and scale to the small perimeter castles of western Europe in the eleventh century.

In Antioch itself, a new citadel was built on Mount Silpius, high enough above the city to be almost detached from it. This has never been properly surveyed but from both the existing plans and personal observation it seems to have been a modest affair, relying on inaccessibility as its main defence.¹¹ It does not seem to have been the main residence of the Byzantine governors but a place of last resort. There was another Byzantine fort at Bourzey, overlooking the marshy plains of the Orontes. The Byzantine redoubt here is very ruined but seems to have consisted of a small rectangular enclosure with square projecting towers at the corners.¹²

At Saone, the Byzantine fortifications were more extensive.¹³ The Byzantine fortress here consisted of a central redoubt, now much ruined, which was roughly rectangular in shape and about 30 × 40 m. This commanded the highest part of the spur on which the castle is situated. It was protected by at least two curtain walls which crossed the spur on both east and west. These curtain walls are strengthened by small, solid towers, some square, some polygonal, which extend from it. There may even have been a further curtain wall to the east where the castle spur broadens out to join the main bulk of the mountain, protected by projecting round towers. While each of these fortresses had a Byzantine redoubt at the centre, it is clear that the Crusaders did not think that the Byzantine fortifications were adequate. In both cases the Crusader work is on a much larger scale and rubble masonry is replaced by larger shaped blocks, which are, in the case of Saone, very finely worked. It is noticeable too that the projecting towers are much more substantial, with large internal chambers and numerous openings. The Crusaders may have learnt something from their predecessors in these cases, but they certainly brought new ideas of their own.

A more substantial early twelfth-century Byzantine fortress can be found at Korikos, at the western end of the Cilician plain. Recent research¹⁴ suggests that this was constructed in the first decade of the twelfth century by the Admiral Eustathios on the orders of the Emperor Alexios Komnenos at a point where his dominions bordered on those of the Franks and Armenians, and that its architecture reflects Constantinopolitan influence rather than local practice. It occupies an almost flat site beside a small harbour and opposite the fortified island castle which lies a few hundred yards from the coast. It was protected to the south and west by the sea, to the north by marshes and to the east by a rock-cut ditch. It is a large (approximately 150 m across) almost square castle constructed mostly in re-used antique stones which give its fabric a very different texture from the small stones of Byzantine Saone. It consists of an inner and an outer line of walls, the inner, as at Constantinople, totally overlooking and dominating the outer. The inner walls are strengthened by boldly projecting flanking towers especially closed spaced along the vulnerable eastern curtain. If the dating is correct, Korikos is a very important

example of state-of-the-art Byzantine military architecture at the time of the Crusader settlement. Three features are conspicuous: the regular, almost symmetrical plan, the use of inner and outer walls in what might be described as a concentric plan and the provision of numerous flanking towers on the inner circuit. All these can be found to a greater or lesser extent in Crusader work of the twelfth century but whether we should imagine direct borrowing or independent solutions to the same problems of defence is open to question.

Alongside the Byzantine tradition there was the Armenian style in military architecture. Unlike the Byzantine, the local Armenian tradition has been extremely thoroughly explored by Robert Edwards and his pioneering work means that we can make some fairly confident generalisations.¹⁵ The Armenians had for centuries inhabited the area of Greater Armenia, on both sides of the modern Turkish–Armenian border. Here they built both fortifications and churches, but while the churches have received at least some attention, the fortifications remain largely unexplored and unpublished: even the great city walls of the capital at Ani are not adequately analysed or dated.

In the second half of the eleventh century many Armenians migrated south and west and settled in Cilicia where they established a second homeland which is sometimes known as Cilician or Lesser Armenia. Originally a collection of independent baronies, it became a kingdom in 1199 and survived, under ever increasing pressure from the Mamlukes of Egypt, until 1374. The Armenians brought with them a highly developed architectural and stoneworking tradition. They also had a social structure in which individual baronial families enjoyed a great degree of independence and in which private fortification flourished. Most of these fortresses were not city defences as found in the Byzantine and Muslim traditions but were castles in the western European sense, constructed, almost without exception, away from the plains on rocky ridges or outcrops where the natural defences were of major importance.

As a result of his extensive and meticulous explorations, Edwards has compiled a checklist of characteristics of Armenian military architecture. In addition to the use of natural features as a means of defence, with the curtain wall hugging the cliff edge, often in so dramatic and precarious a position that it must have required a cool head for heights from the builders, he lists, among other features, the absence of donjons or keeps and the use of round towers to flank the curtain walls.

The use of round towers can be seen most clearly in the defences of the large enclosure site at Anavarza, on an isolated outcrop in the middle of the Cilician plain.¹⁶ The fortifications of this strategic site date from many different periods but probably the most impressive are to be found on the south side of the south bailey, overlooking a slope which descends steeply to the plain. Here, strengthening a wall which was probably built during the Arab

occupation of the eighth and ninth centuries, we find four boldly projecting rounded towers with internal chambers from which flanking fire could be directed through arrow slits along the side of the wall from a position of comparative safety. These towers can be dated to the period c.1111–29. Such towers were to become the characteristic defensive device in both Crusader building and western Europe from the beginning of the thirteenth century but were almost completely unknown at this stage.

A further interesting piece of evidence about Armenian styles can be found in Edessa. Although it lay far to the northeast of the Holy Land and well away from the Mediterranean sea, distant Edessa was the first Middle Eastern city to be occupied by the Crusaders, who were invited to come by the local Armenian ruler. For the half-century that it was in Crusader hands before its fall to Zengi in 1144, the Armenian community played a major role in the life of the city and the county of which it was the capital. In 1122 the administrator of the city for Count Joscelyn I, an Armenian called Vasil, had the fortifications of the city strengthened. Among these works was a round tower projecting from the wall with arrow slits to provide flanking fire. In order to commemorate his work, Vasil had an inscription inserted in the masonry, which is how we know about him and the date of the tower.¹⁷ Once again, the connection of a round tower with the Armenians is noticeable.

While the links between Byzantine and Crusader fortifications are tenuous, the connections with Armenian work are clearer. There can be no doubt that fortifications in the Principality of Antioch owed much to them and it may be that the great round towers which appear in Crusader work at the end of the twelfth century were the result of Armenian inspiration.

We know little of contemporary Muslim fortification.¹⁸ The frequent wars between Muslim powers were usually decided not by sieges but by combat in the open field. Cities were certainly fortified; Jerusalem itself had powerful walls (which have now totally disappeared under sixteenth-century rebuilding) and the walls of Tyre and Ascalon were able to keep the Crusaders out for many years. Aleppo was certainly dominated, then as now, by the citadel on the ancient tell, though the dramatic gate and associated buildings we see today date from the end of the twelfth century. Castles as such were much rarer but it does seem if local lords, among them the Banu Munqidh of Shayzar, had established themselves in castles in the mountains of northern Syria.

Two interesting forts survive on the coast of the Kingdom of Jerusalem to give us some idea of Muslim fortification in the area in the early Middle Ages. The oldest of these is at Cafarlet (modern Habonim) north of Caesarea. It stands on a small hill overlooking the coast road. In shape it is almost square about 58 × 50 m, with small round towers at each corner and semi-circular towers each side of the main gate. Although it is referred to in Crusader docu-

ments, the building is clearly a very good example of an Umayyad *qasr* or castle. The Arab geographer Yaqut, who says that Kafar Lab near Caesarea was built by Hisham b. 'Abd al-Malik (Caliph, 724–43), is probably correct. More problematic is a fort just south of the modern port of Ashdod known as Qal'at al-Mina. According to the geographer al-Maqdisi, writing in the tenth century, there was a fort there to which Byzantine ships came bringing Muslim prisoners for ransom. The building, whose walls survive to a considerable height, is rectangular, about 60 × 45 m. It is defended by a combination of round and square towers, larger than those at Cafarlet, and all solid. The building might be Byzantine or Umayyad but is more probably a rare example of Fatimid fortification, erected to serve as a base during the extended Fatimid campaigns in Palestine in the late tenth and early eleventh centuries. Both these buildings show that planned fortifications reminiscent of Roman castra continued to be built in this area but there is no evidence that they had any direct influence on Crusader military architecture.¹⁹

The finest examples of Muslim military architecture from the immediately pre-Crusader period come from Cairo.²⁰ Between 1087 and 1092 three of the Fatimid gates and a stretch of city wall were rebuilt. Muslim sources state that the architects were three brothers from Edessa, probably Armenians. All three gates are protected by boldly projecting flanking towers. Two of these, the Bab al-Futuh of 1087 and the Bab Zuwayla of 1092, are rounded on the outside; the third, Bab al-Nasr (1087), is rectangular. All are solid for the first two-thirds of their height but have large spacious chambers to survey the gates and the walls in the upper section. All are built in very fine ashlar masonry. The wall-head defences were simple, round-headed crenellations and there is no trace of machicolation in the original structure or of a portcullis in the gate itself. The rebuilt sections of the city wall had a vaulted passage along the top with regularly placed arrow slits, and there are two surviving flanking towers, one a massive bastion on a corner of the wall, the other quite small, and both square in plan. The gates of Cairo seem to reflect northern Syrian or Mesopotamian practice and are very much in the classical Roman tradition of town defences, very impressive but thoroughly traditional: Vitruvius would have been proud of them.

There are some indications that the eleventh century saw an increase in the building of fortifications by the Muslims of Syria, although the evidence is not extensive. Recent research in Muslim Spain²¹ has shown how *husun*, hill-top fortifications, were widespread in the southeast of al-Andalus and that many of them, like the castle of Uxo near Valencia which was the subject of archaeological investigation, were constructed or rebuilt in the early part of the eleventh century. These castles are characterised by their positions on isolated rocks or ridges, the comparatively large irregularly shaped areas they enclose and the use of square projecting towers to defend a curtain wall. It is

plausibly suggested that many of them were constructed as places of refuge in times of disturbance, though some also became the sites of permanent settlements. It seems, too, that these fortifications were built by the local communities for their own protection rather than by the central government or local lords attempting to use them as bases for exercising power.

There is some evidence that similar fortifications were built in the Nusayri mountains of northern Syria. The first fortress at the ridge-top site of Akkar, later to be rebuilt by the Crusaders, is said by the Arabic sources to have been built by one Muhriz b. Akkar around the year 1000.²² Further north, Maniqa (Frankish Malaicas) was founded at the same time by a local mountain chief, Nasr b. Musraf al-Rawadifi,²³ and Qal'at Mehelbe (Fr. Balatanos) was begun by the mountain clan of the Banu Ahmar at the beginning of the eleventh century.²⁴ In addition, Arab accounts say that the plateau of Margat was first fortified by the Muslims in 1062 and that the site of Crac des Chevaliers was first occupied by a settlement of Kurds (hence its original Arabic name of Hisn al-akrad or Castle of the Kurds) in 1030. All these were plateau or ridge sites, and the only one on which eleventh-century Muslim building may survive, Qal'at Mehelbe, shows an oval enclosure about 200 m across surrounded by a curtain wall with projecting square towers. The literary evidence is fragmentary, the archaeological material virtually unexplored, but it may be that the Nusayri mountains in the century before the arrival of the Crusaders were the scene of castle building by local Muslim groups very similar to the much better documented examples from Spain.

The coming of the Saljuks may also have led to the development of urban fortifications. The citadel of Damascus seems to have been founded by the Turkish adventurer Atsiz b. Uvak, who took possession of the city in 1076-7.²⁵ This seems to have been the first time a fortress was constructed in the city. Similarly the earliest fortification of the Roman theatre at Bosra, a single tower, was constructed by a Turkish commander in the 1080s.

The crusaders could draw on a number of different styles of military architecture but how important these borrowings were is more problematic. There is a model which suggests that, in cultural matters, people only borrow from others what they are on the verge of inventing themselves. If there were borrowings of military technology it was because the Franks could appreciate that such devices were useful and served their immediate purposes. There is no question of slavish imitation but of adaptation of particular designs whose utility was apparent. At the same time, we should never underestimate the pragmatism and inventiveness of castle builders and we shall probably understand more about the architecture of Crusader castles by investigating the needs and purposes of the builders and the threats they faced than by searching for outside influences.

CASTLES OF THE
TWELFTH-CENTURY
KINGDOM OF JERUSALEM



THE Kingdom of Jerusalem was by far the largest and most prosperous of the Crusader states. At its apogee in the half-century before the disastrous defeat at Hattin in 1187, it comprised not only Palestine between the Jordan valley and the Mediterranean but also the lordship of Oultrejourdain to the east of the Dead Sea, which extended as far south as the Gulf of Aqaba, and much of the coast of modern Lebanon as far north as Beirut. The castles in this area are not as spectacular as Margat, Saone or Crac des Chevaliers in Syria, but they are still very interesting. In the Kingdom of Jerusalem in the twelfth century we can see the traces of real attempts at settlement of the land. In the modest towers of knightly families and the first enclosure fortifications of the military orders we see the hopes and aspirations of a generation who believed that the Holy Land would become a part of Latin Christendom as surely as the newly conquered lands of Sicily and Toledo.

ROYAL AND COMMUNITY CASTLE BUILDING

Almost as soon as they set foot in the area which was to form the Crusader States, the Franks began to build fortifications, among the earliest of them being the three towers constructed outside Antioch when the Crusaders were besieging the city in the winter of 1097–8.¹ The siege of Jerusalem in the summer of 1099 was much shorter than the blockade of Antioch and it seems that no substantial fortifications were built to assist it. When the city was captured, most of the army of the Crusade returned home to the west. Godfrey de Bouillon, one of the leaders of the Crusade, was chosen as ‘Advocate of the Holy Sepulchre’, in effect ruler, and he began the process of establishing a

state which would support and protect the newly conquered Holy City. After his death in 1100, his position was taken over by his brother Baldwin, who had himself crowned as King of Jerusalem (1100–18). Baldwin set about securing and expanding his lands in Palestine and east of the Jordan. He faced a hard struggle; according to Fulcher of Chartres, who knew the situation at first hand, only 300 knights remained in the whole kingdom.² In these circumstances, Baldwin naturally began to build fortifications to supplement his meagre resources of manpower. He needed to; it was only because he was able to take refuge in a tower he had built the previous year at Ramlah that he (and the kingdom) were able to survive a crushing defeat by the Fatimid army in May 1102.³

Before his death, Godfrey had fortified Hebron and Jaffa, the only port then in Crusader hands and a vital link with the west. No trace of the works at Jaffa have survived but there are scanty remains of Crusader fortification attached to the Herodian precinct at Hebron.⁴ Baldwin also built some castles: in a continuation of the *Gesta Francorum*, he is credited with the following fortresses (munitiones): Mons Regalis (Montreal, Shawbak, discussed below), Turris Neapolitana (Nablus), Malue, on the coastal plain of Sharon but not exactly located, Caun Mons (Qaimun), Acre and Scandelion, on the coast between Tyre and Acre.⁵ Of these works, only Montreal has left any significant traces.

Godfrey and Baldwin also made use of the citadel at Jerusalem.⁶ When the Crusaders captured the city in the summer of 1099, this seems to have consisted mainly of Herod the Great's Phasael tower with a courtyard, strengthened in Fatimid times, attached. It had been surrendered to Raymond of Toulouse but Godfrey had taken it over. On his death the next year, it was seized by a Lotharingian knight, Warner de Gray, who held it until Godfrey's brother Baldwin could arrive from Edessa and take over the crown. It was known as the Tower of David and figures prominently as a symbol of the city on the royal seal. The Russian pilgrim, abbot Daniel, described what he saw in 1106–7:

It is curiously built in massive stone, is very high, and of square, solid impregnable form; it is like a single stone from its base up. It contains plenty of water, five iron gates and two hundred steps to the summit. An immense quantity of corn is stored in this tower. It is very difficult to take and forms the main defence of the city. It is carefully guarded and no one is allowed to enter except under supervision.⁷

For all its strength it was clearly a single tower at this stage and it seems to have remained like that until about 1170 when it is described as having a newly built solar and palace next to it and being strongly fortified with ditches and barbicans. In the Cambrai plan of the late twelfth century, the tower is

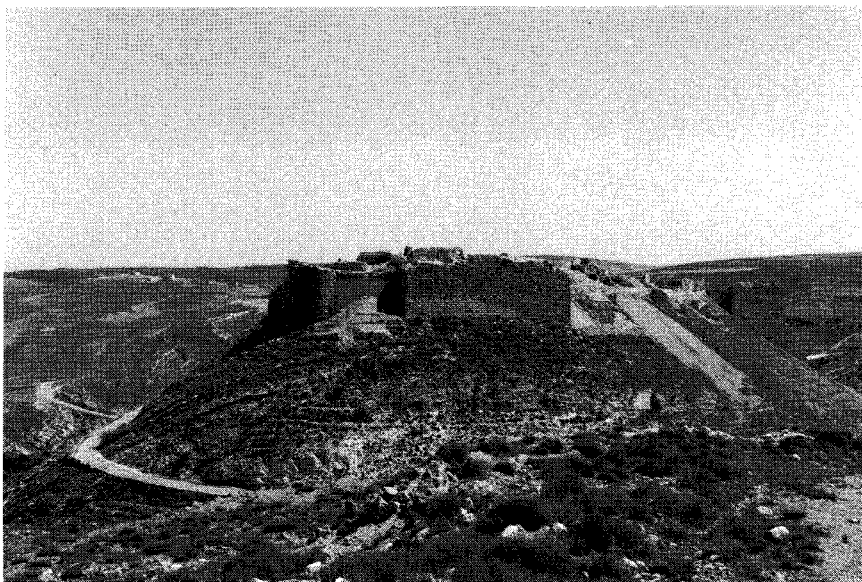


Plate 1 Montreal (Shawbak), founded by King Baldwin I in 1115: general view from the south, showing its position on a hill isolated from the rest of the plateau of Edom. All the visible fortifications are Mamluke, enclosing the surviving Crusader work

shown with a loggia surmounted by battlements on top and a building called the Curia Regis on one side and the Porta David (Jaffa Gate) on the other. Of these structures, only the massive stump of Herod's original towers still survives, surrounded at its base by a typical Crusader glacis, and some vaults in the courtyard. All the rest was rebuilt in the Mamluke period.

King Baldwin I pursued an ambitious expansionist policy, especially in the area to the east of the Dead Sea which became known to the Crusaders as Oultrejourdain. The man who had broken away from the Crusader army in 1097 to seize power in distant Edessa was unlikely to be deterred by the remoteness of these areas from the Mediterranean life-lines of the kingdom. From the beginning of his reign Baldwin had been attracted by the commercial possibilities of the area and he particularly wanted to control and tax the caravan route from Damascus to Egypt and the Muslim Holy Places in the Hijaz which lay along the old King's Highway to the east of the Dead Sea. In 1115 he led an expedition beyond the Dead Sea to the mountains of Moab and Edom which formed the core of Oultrejourdain. Here he founded a castle on an isolated hill dominating a well-watered and settled valley at a place he called Montreal (modern Shawbak).⁸ Albert of Aix specifically says that the main intention was to control the commerce of the area so that merchants

CRUSADER CASTLES

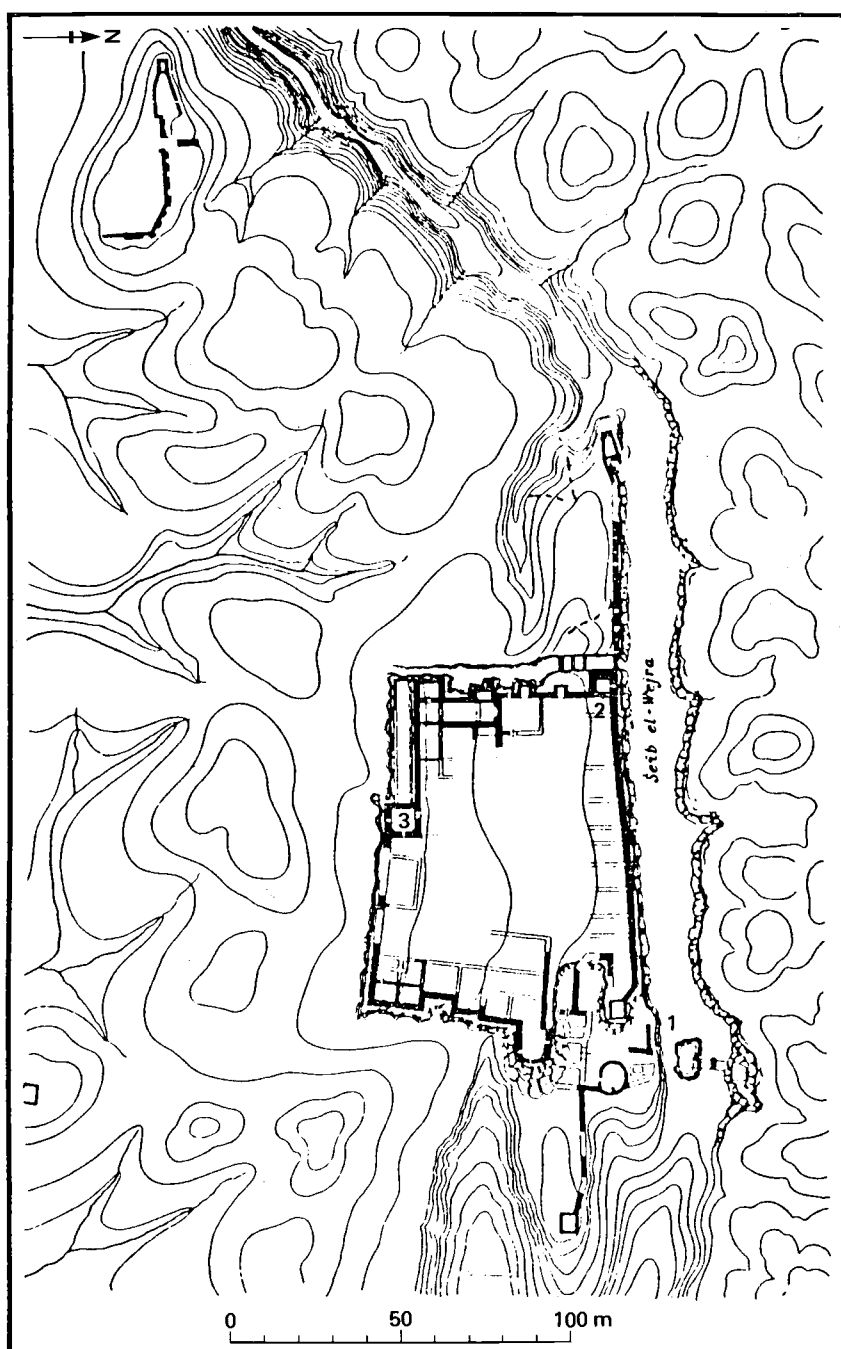


Fig. 1 Li Vaux Moise: plan. Note the wadi running along the north side with the bridge and gatehouse at the eastern end. 1. Bridge and gatehouse; 2. northwest tower; 3. donjon.

could not travel without the 'goodwill and permission of the king' (*regis gratia et licentia*).⁹

The natural strength of the round hill-top site at Montreal, separated from the high plateau of Edom, no doubt attracted the king (plate 1). Below the conical hill on which the castle stands is a well-watered valley and the bleak plateau of Edom around is more fertile than might at first appear. Much of the fortification which now crowns the summit dates from the post-Crusader Mamluke period but it is possible to see traces of a curtain wall running inside the later structure, and two chapels. Thietmar, who saw the castle in 1217 after the Muslim conquest but before their rebuilding, describes it as 'a most excellent fortress, surrounded by triple walls and as strong as any I have ever seen' and he stayed there in the house of a French widow who sent him on his way with supplies for his journey to Sinai.¹⁰ The only weakness of the site was the lack of water but this problem was solved by the construction of a staircase-tunnel which led down inside the hill to two spring-fed cisterns carved in the rock so that water could be brought to the fortress without exposing the defenders to enemy power. (This system was explored by Savignac in 1932, a truly terrifying prospect, and he counted 365 steps in the steep and twisting passage.¹¹) In the absence of a thorough survey of the extant remains, it is impossible to make any reliable assessment of the military architecture.

The next year Baldwin led another expedition to the area, which resulted in the foundation of the castle at Li Vaux Moise and probably Aqaba. Li Vaux Moise (The Valleys of Moses)¹² stands by the well-watered valley of Wadi Musa, outside the ancient city of Petra. It was close beside the road which led from the King's Highway, the main north-south route east of the Dead Sea, down into the Wadi Arabah and thence to Egypt. The surviving building is probably all twelfth-century work. The site is remarkable (Fig. 1). In the wilderness of lumpy, wierdly eroded rocks, the Crusaders chose a ridge separated from the surrounding massif by sheer precipices (plate 2). They improved this isolation by smoothing the rocks so that an attacker could not possibly find any hand or foot holds. The only access is across a single narrow bridge, completely overlooked by the walls of the castle. Guarding this bridge stands the most remarkable architectural feature of the defences, a gatehouse carved out of the solid rock (plate 3). The red sandstone of nearby Petra is, of course, famous for its rock-cut buildings. Whether knowingly or not, the Crusaders followed the ancient tradition and hollowed out a gatehouse cave, complete with benches along each side.

The rest of the architecture is less remarkable. The fortifications cling precariously to the edge of the cliffs which surround them on every side. The masonry is of fairly small, squared and coursed stones which comprise a curtain wall. The basic plan is a rectangular enclosure, approximately 100 × 35 m,

CRUSADER CASTLES

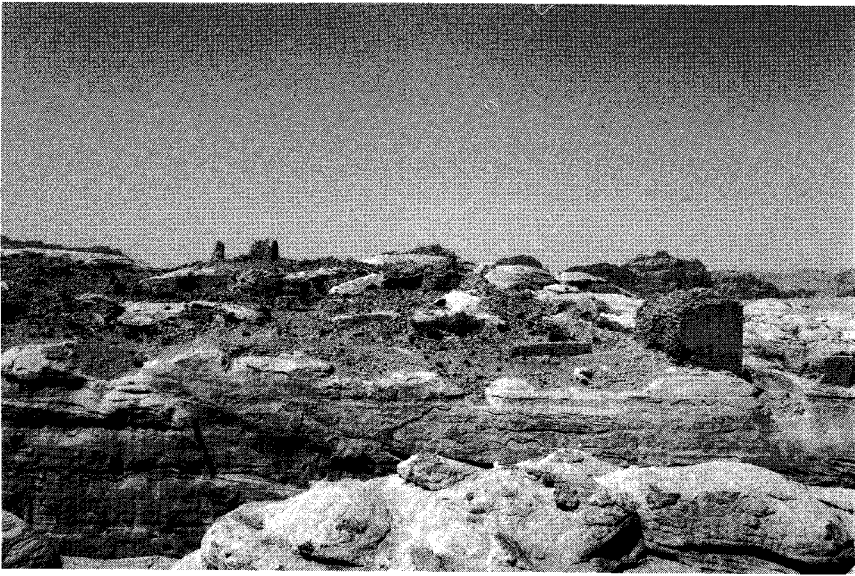


Plate 2 Li Vaux Moise (al-Wu'ayrah), founded by King Baldwin I in 1116: general view from the north. The square western tower with its arrow slit can be seen to the right and the remains of the donjon on the skyline, centre left. In the foreground is the partly artificial ravine which separates the castle from the massif. The hills overlooking the ancient city of Petra can be seen on the top right.

with traces of chambers on the insides of some of the walls. The few towers are square but are provided with arrow slits, and one of them, on the centre of the south wall, could be described as a donjon. Outside the main body of the fort, there are remains of watchtowers perched on isolated outcrops and connected to the centre by rock-cut paths and stairs. The architecture is not grand but curiously impressive in this remote landscape. It was militarily very effective. In 1144 it was taken by a surprise attack by Turks and the young Baldwin III was only able to retake it for the Crusaders by alternative means. William of Tyre takes up this story of twelfth-century economic warfare:¹³

When it became known that the enemy had seized this fortress and had killed the Christians dwelling there, the king, although still very young, levied forces from all over the land and set out for it . . . The inhabitants of the country had already had news of our approach and with their wives and children had fled into the fortress [*presidium*], the defences of which seemed to render it impregnable. For several days our forces exerted themselves in vain before the place. Volleys of stone missiles, repeated showers of arrows, and other methods of assault were tried with no result. Finally the Christians became convinced that, because of its fortifications, the place could not be taken. They therefore turned to other plans.

THE TWELFTH-CENTURY KINGDOM OF JERUSALEM

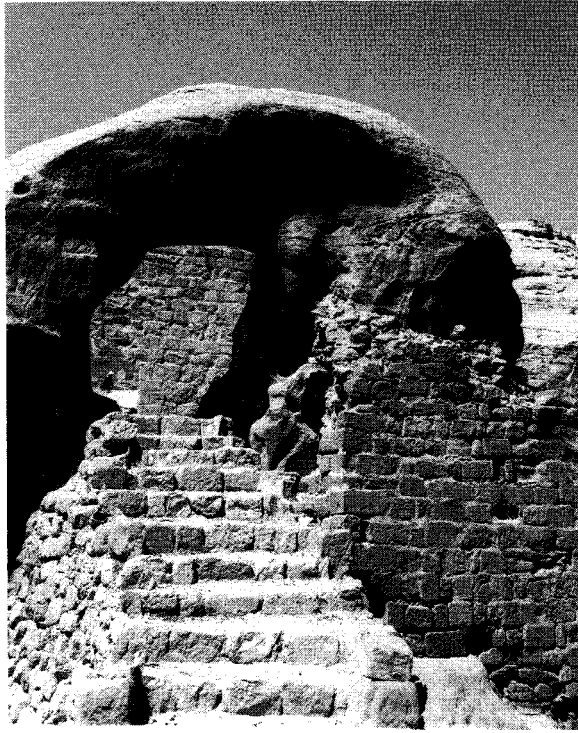


Plate 3 Li Vaux Moise, showing the rock-cut gatehouse from the exterior (north), and to the right the twelfth-century Crusader wall with its characteristically rough-cut rectangular blocks. The steps have been repaired.

The entire region was covered with luxuriant olive groves which shaded the surface of the land like a dense forest. The inhabitants of the land made their living from these trees as their fathers had done before them. If these failed, then all means of livelihood would be taken away. It was decided, therefore, to root out the trees and burn them. It was thought that the terrified inhabitants, rendered desperate by the destruction of their olive groves, would either give up or drive out the Turks who had taken refuge in the citadel and surrender the fortress to us. The plan was entirely successful. As soon as they saw their beloved trees cut down, the people changed their tactics and adopted others. On condition that the Turks whom they had called in were allowed to depart unharmed and that they themselves with their families should not be punished by death for their wicked conduct, they restored the stronghold [*castrum*] to the king.

The king left a new garrison to defend this lonely spot and they held it against an Egyptian expedition in 1158 but, like all the Crusader fortresses in Oultre-jourdain, it fell to the Muslims in 1188 after the defeat at Hattin.

CRUSADER CASTLES

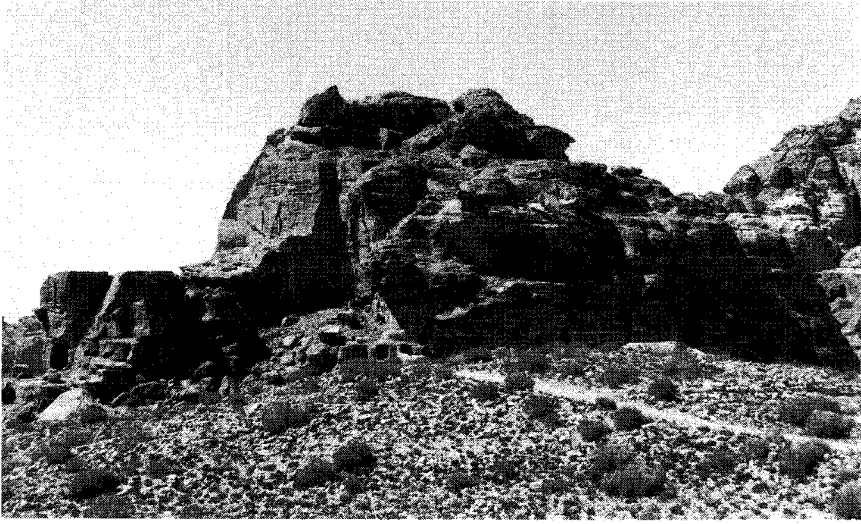


Plate 4 Al-Habis (possibly Crusader Sela), twelfth-century: general view from the east. The castle crowned the top of this isolated rock. The small donjon stands on the right-hand summit with the upper bailey to the left of it and a lower bailey on the side. The main access was by stairs up the cliff to the left. Nabatean and classical tombs can be seen at the foot of the massif.



Plate 5 Al-Habis: Crusader curtain wall on crag at northeast corner of lower bailey. Two courses of squared stones can be seen.

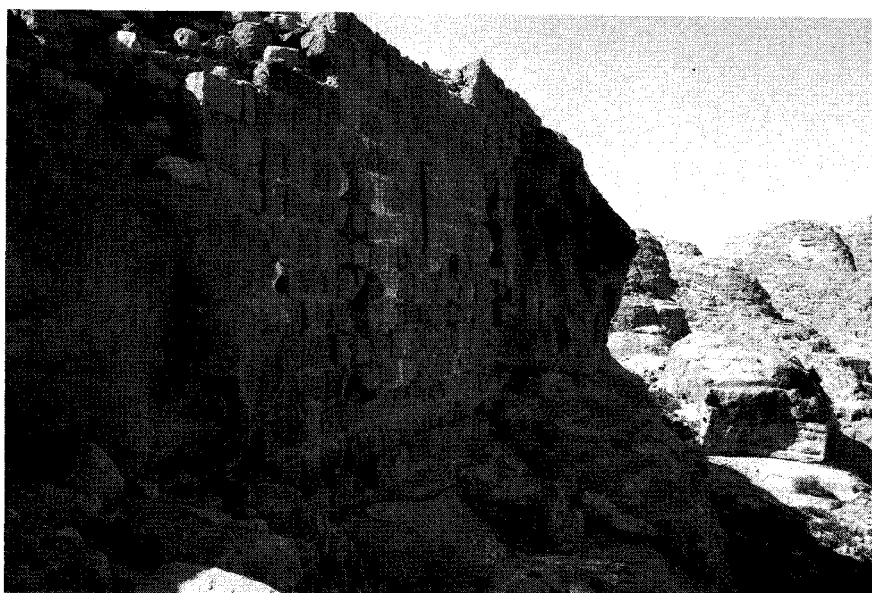


Plate 6 Al-Habis: curtain wall of lower bailey showing coursed, square blocks and arrow slit. Note how the built wall integrates with the natural rock to form a single defensive system. There are two casemates, now largely filled with rubble; behind the wall.

Still more remarkable is the small Crusader fort which crowns the rocky pinnacle known as al-Habis overlooking the basin of ancient Petra (plates 4 and 5). The only Latin source of the Crusader period to mention the ancient site of Petra was the pilgrim Thietmar, who visited it in 1217. His short but very interesting account makes it clear that the site was uninhabited at that time.¹⁴ Despite this, there are clear traces of fortification on the top of al-Habis.¹⁵ These were long thought to be the remains of the Nabataean citadel but G. and A. Horsfeld in 1937 suggested that this work was Crusader and this opinion was supported by Hamond after a full survey and more recently by Marino *et al.* Nonetheless, scholarly opinion remains divided on the issue and Mayer¹⁶ is doubtful that this is Crusader work, on the grounds that there was no purpose in the Franks building an outpost overlooking this vast, barren and depopulated archaeological site.

Inspection of the site shows clearly that this is indeed Crusader work, even if some of the stone is re-used; an arrow slit on the north wall is so clearly twelfth-century Frankish as to leave no doubt (plate 6). The situation of the fortress is spectacular. The actual walls and buildings are comparatively modest. One rough pointed arch survives along with two cisterns to catch rainwater (there being of course no spring) and the walls which cling precariously to the edge of the rock. The topography absolutely dictates the design.

It is possible to distinguish a lower bailey and an upper bailey but the irregular shapes of these are decided by the lines of the precipices which surround it. The rock is crowned by a small keep. What makes the site so impressive is not the built structure but the position, overhanging a great sheer drop down to the basin of Petra below. In every direction the views are wild and vertiginous and the chasms which open up beyond the walls quite heart-stopping. The identification of this site as containing at least some Crusader work does not, however, solve the difficulties raised by Mayer. The site is chosen for its absolute inaccessibility; it could not act as a customs post or the centre of an agricultural estate and it is not even very well situated as a watchtower. The only explanation which makes any sense is that it was fortified at a time when the Frankish garrison at Li Vaux Moise had been driven out and needed a place of refuge. This could have been after the surprise attack by the Turks in 1144 or perhaps after its final fall in 1188 when a remnant of the garrison could have taken refuge in this lonely outpost hoping desperately that one day help might come.

Also claimed as Crusader work is the ruined castle on the island known today as Jazirat Far'un (Pharaoh's Island), in the Gulf of Aqaba, off the coast of Sinai just south of Eilat. Scholarly opinion has even given these impressive ruins the splendidly Frankish name of Ile de Graye. In fact there is no evidence at all for Frankish building here and the name is never mentioned in Crusader sources. It is most likely that the fortifications were begun by the Muslims in the twelfth century as a protection against Frankish raids from Oultrejourdain; and the name, it turns out, is no more than an imaginative embroidery of the Arabic word *qurayya*, meaning 'little village'.¹⁷

The works in Oultrejourdain were Baldwin I's most important surviving foundations. His successor Baldwin II (1118–31) does not seem to have been a great castle builder though Fulcher of Chartres credits him with the building of the small, now vanished castle at Mont Glavianus (possibly Dayr al-Qal'ah) near Beirut in 1125: 'In this year, in the month of October, the king built a castle in the mountains of Beirut in a region which was very fertile . . . Previously the Saracen peasantry had been unwilling to pay taxes for their lands, but afterwards they were forced to do so'.¹⁸ A clearer statement of the reasons for castle building would be hard to find. The coming of Fulk of Anjou as heir apparent in 1129 and then as king from 1131 to 1143 gave an added impetus to the building of castles in the Kingdom of Jerusalem. He had been Count of Anjou since 1109. The stone donjon so characteristic of twelfth-century military architecture in western France had originated in Anjou; Fulk, like all his family, had already shown himself a castle builder in his homeland and he himself is credited with the construction of the fine keep at Montrichard on the river Cher.

From 1130 a series of castles were built in the south of the kingdom, in the

Ascalon area, which were as much communal initiatives as examples of royal castle building. Ascalon, at the southern end of the coast of Palestine, remained in Muslim hands until 1153. Sea communications with Egypt remained open and the garrison was regularly changed to avoid fatigue. Nor were they content to remain behind their walls but made frequent sorties to ravage the southeastern areas of the Kingdom of Jerusalem. In response to this a series of castles were constructed to serve as refuges and as bases for attacks on the Muslim-held city.

The first of these was at the site known as *Castrum Arnaldi* on the road from the coastal plain to Jerusalem where a narrow defile had given the Muslims the chance to ambush pilgrims. In 1132–3, while the king was still occupied in sorting out the affairs of the Principality of Antioch far to the north, the patriarch and the citizens (*cives*) of Jerusalem organised the construction of a castle of solid masonry to guard the road.¹⁹ A few years later, in 1136 another castle was constructed, in rolling countryside some 40 km to the east of Ascalon: ‘the people of the whole kingdom’ (*universi regni populo*), the patriarch William and the magnates gathered and built a castle (*presidium*) with a high wall, outer walls (*antemuralibus*), towers and a moat on the plains near the city. The castle, known as Bethgibelin, was handed over ‘by common consent’ to the Knights Hospitallers,²⁰ a move which seems to have marked the beginning of the Knights’ involvement with castle holding in the Kingdom of Jerusalem.

In 1141 King Fulk and all the leading barons (*principes*) of the kingdom, with the patriarch and the bishops, made the joint decision to build a castle to the north of Ascalon at a place the Crusaders knew as Ibelin. It was built with four towers (presumably one at each corner) and entrusted to one Balian, who was to take his name from the castle and became the founder of the most important of all the baronial families of the Kingdom.²¹ Encouraged by this success, the next spring the king and his nobles as well as the church leaders assembled to construct a castle on a site they were to call Blanchegarde. Workmen (*artifices*) were called and the people were provided with materials. Like Ibelin, the castle had four towers and served as a base for attacking the Ascalonites as well as a place of refuge.²² In 1150, King Baldwin III and his nobles fortified Gaza, on the Egyptian side of Ascalon, and entrusted it to the Templars²³ and finally, shortly before 1170, founded a castle at Darum with four towers, one larger than the others.²⁴

Of these castles, only *Castrum Arnaldi*, where a length of curtain wall survives, and Bethgibelin have left any traces. At Bethgibelin (modern Bet Govrin) the castle took the form of an enclosure about 50 m square with towers at each corner, in the northwest corner of the Byzantine city walls. The interior arrangements are quite unclear but excavations currently being conducted by the Israel Department of Antiquities may shed light on this.

Despite the lack of surviving buildings to illustrate the written accounts, they are of great interest in understanding the building of castles in the early twelfth century. The purposes are made abundantly clear: above all to prevent raids from Ascalon and provide a refuge for those who are attacked, but there is also the intention that they should serve as a base for launching attacks on the city. The building of castles also brought economic benefits and the description of the effect that the building of Blanchegarde had on the surrounding country is a classic statement of the role of the castle as a bringer of wealth: 'The people of the surrounding region began to place great reliance on this castle as well as on the other strongholds and many suburban places grew up around it with numerous households and tillers of the fields. The whole district became much safer because it was inhabited and a more plentiful supply of food for the surrounding areas was made possible.'²⁵ In the case of Bethgibelin we also have a charter of Raymond du Puy, Master of the Hospitallers, dated before 1160 in which he granted lands on very favourable terms to thirty-two Frankish families to try to encourage them to settle. As Riley-Smith observes, this was a *charte de peuplement* very similar to contemporary examples from western Europe and it shows clearly the role of the castle as a centre of economic activity. In this context it is also worth noting that the castle is not on a hill-top site, which would have been better for both observation and defence, but in the valley near the springs and the road.²⁶ From the comments of William of Tyre, it would seem that Ibelin and Blanchegarde were also rectangular structures with towers at the corners. Rey gives a plan of the ruins of Blanchegarde as they existed at the time of his visit which suggests a square enclosure about 50 m across with towers at the corners and possibly a cistern in the centre.²⁷

Also interesting is the impression of communal effort in the building of a castle. Sometimes the king was present, as at Ibelin, Blanchegarde and Gaza, but he is always said to have acted in consort with the great men of the kingdom, while at Castrum Arnaldi and Bethgibelin, the king was not present at all. Not only was there communal decision-making, but we also have the impression of voluntary labour, especially at Blanchegarde where there may be an implied distinction between the professional *artifices* who were summoned and the voluntary labour of the *populus*. We can also see the importance of ancient ruins in deciding the position of the castles and providing building materials: Bethgibelin, Ibelin and Gaza were all built on such sites. Ancient wells and cisterns also provided a useful water supply at Ibelin.

Apart from these projects, there is little trace of royal castle building in the Kingdom of Jerusalem, the kings being mostly based in urban centres like Jerusalem and Acre. Contemporary observers noted this: when Thoros of Armenia was travelling through the kingdom in the 1160s, he is said to have remarked to Baldwin III, 'When I came to your land and enquired to whom

the castles belonged, I sometimes received the reply, "This belongs to the Temple [the Knights Templars]"; elsewhere I was told, "It is the Hospital's". I found no castle or city or town which was said to be yours except three."²⁸

CASTLES OF THE LAY NOBILITY

One of the most important recent developments in the study of Crusader castles has been the discovery of the extent of Latin settlement in the Kingdom of Jerusalem. In many cases the buildings of these colonists were modest and have either vanished completely or left undistinguished remains which have attracted little attention. A study of Crusader castles which concentrates only on spectacular structures like Crac des Chevaliers and Margat, however, would give a very misleading impression of the nature and variety of Crusader military architecture.

Many of the earliest fortifications in the Kingdom of Jerusalem were built by knights who wished to make them the centres of small estates, men like Amalric of Franchieu at Jaba or Geoffrey of Flujeac at Calansue. These fortifications almost always took the form of stone towers, usually two stories high and roofed by stone groin or barrel vaults. A recent study by Pringle²⁹ locates seventy-five such towers and there were no doubt more. They ranged in size from a tiny 8.4×5.3 m at al-Habis in Petra to over 26 m square at Forbelet in Galilee (rather smaller than those in northern France and England) and do not normally seem to have been more than 15 m tall, though none survives to its full height. Sometimes these towers remained isolated structures; at others they became the strong points of a series of buildings ranged round a courtyard. At Magna Mahumeria (al-Bira) and Rama (al-Ram), north of Jerusalem, the tower was part of a complex of buildings which probably formed the *curia* of the steward who administered the estate for the canons of the Holy Sepulchre. Such towers were also attached to ecclesiastical complexes. At Bethlehem a defensive tower was built on ancient foundations next to the Church of the Nativity.³⁰ When Queen Melissende came to found a nunnery at Bethany in 1143, even though it was so close to Jerusalem itself, a tower was her first construction: 'Since the place lay on the edge of the desert and thus might be exposed to the attacks of the enemy', explains William of Tyre, 'the Queen at great expense caused to be built a strongly fortified tower of hewn and polished stone. This was devoted to the necessary purpose of defence, that the maidens dedicated to God might have an impregnable fortress as a protection against the enemy.'³¹

As a result of important recent research by Pringle and the British School of Archaeology in Jerusalem, we now have a fairly full picture of the development of Crusader settlement in the plain of Sharon which was then part of the lordship of Caesarea, held throughout the Crusader period by the Garnier

CRUSADER CASTLES

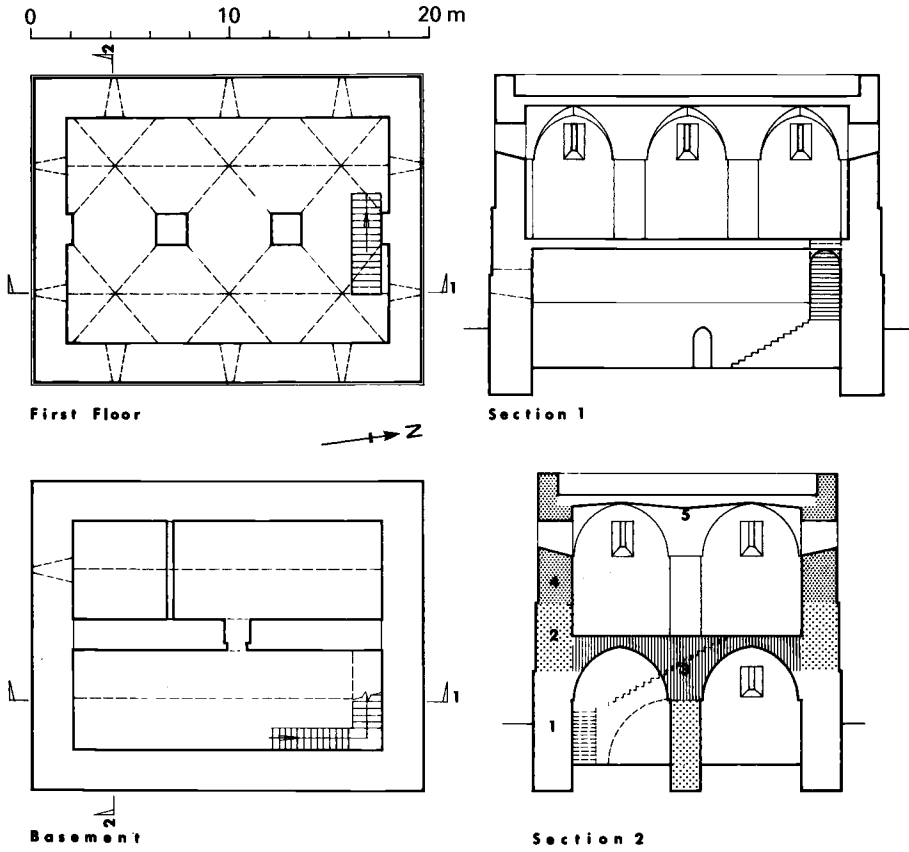


Fig. 2 Red Tower: plan and section of a typical twelfth-century Crusader tower.

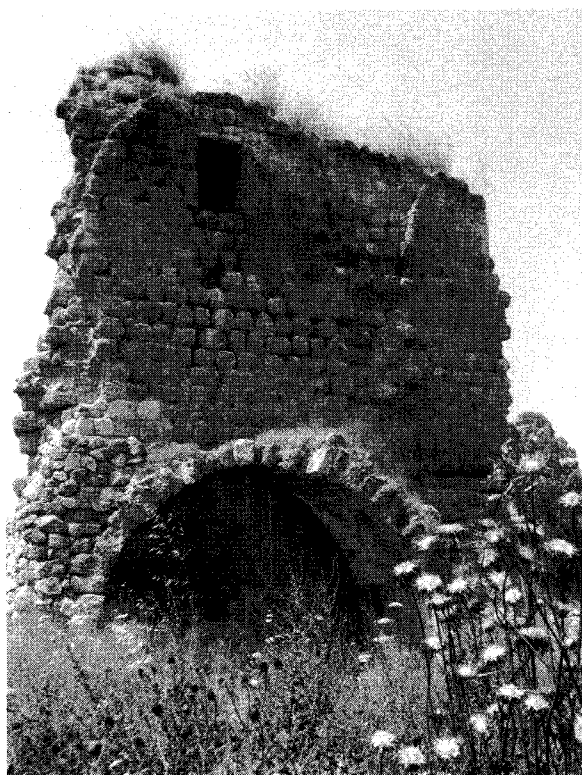


Plate 7 Red Tower (Castrum Rubrum; Burj al-Ahmar): probably early twelfth-century; general view from the northwest. The surviving wall is part of the short southern end of this rectangular donjon. Note the barrel-vaulted undercroft and the outline of the first-floor arches. From this fragment and the excavated foundations, Pringle was able to reconstruct the form of this donjon (see fig. 2). Red Tower is typical of many small Crusader donjons erected by Frankish laymen in the early twelfth century.

family.³² In this fairly small area, there are five castles of which significant evidence remains: Calansue (Qalansuwa), Caco (Qaqun), Montdidier (Madd al-Dair), Castrum Rubrum (Burj al-Ahmar, Red Tower) and the Castle of Roger the Lombard.

Calansue, Montdidier, the Castle of Roger the Lombard and Red Tower all seem to have been held originally by knights who were vassals of the lords of Caesarea and it may have been at this period that the fortifications were constructed. During the twelfth century almost all these castles passed into the hands of institutions: the Benedictines of St Mary Latin held Montdidier by 1123 and Red Tower by 1158; the Hospitallers had Calansue by 1128. Only Caco seems to have remained in the hands of a lay lord; in this case the lords

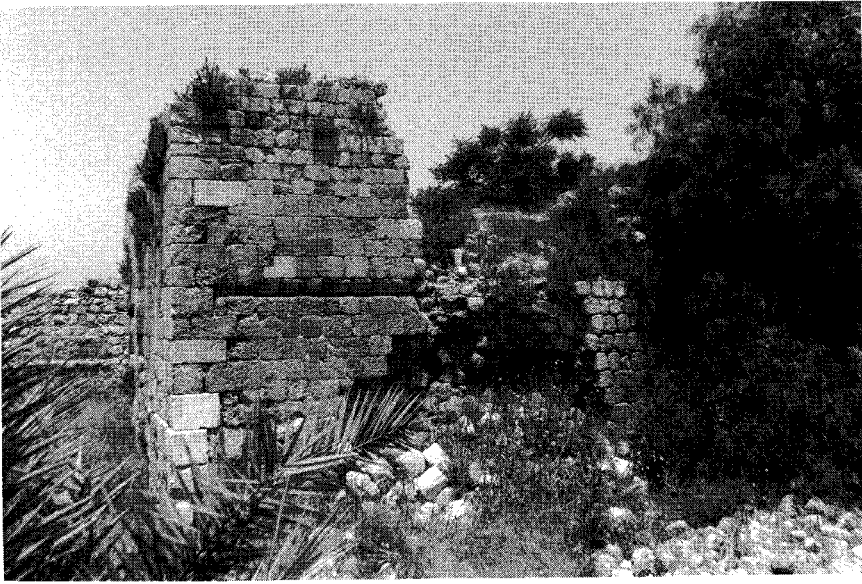


Plate 8 Caco (Qaqun), probably early twelfth-century: southeast corner of this ruined donjon. Although the design was similar to Red Tower, the masonry work is finer, using squared blocks and classical fragments.

of Caesarea held it directly, though some of the land which surrounded it was in institutional hands.

Architecturally these castles are varied. Montdidier (now completely ruined), Caco and Red Tower (fig. 2, plate 7) are all rectangular donjons in the Crusader manner, that is fairly low and stone vaulted throughout. They may have stood within an enclosure but no trace of this now remains. Calansue also has a tower, of which only one, finely built wall survives, but it also has a hall above an undercroft and traces of other structures. The buildings are not joined in any planned whole or defensive enclosure, perhaps suggesting more a fortified manorial complex than a serious castle. The castle of Roger the Lombard was probably a courtyard building of which only one side survives, with a single vaulted chamber. Crusader towers show a variety of ground plans: the simplest are those like Burj Arab and Giblet in the County of Tripoli, with a simple barrel or groin vault over the whole area. More elaborate were Caco (plate 8) in the lordship of Caesarea and Chastel Rouge and Saone in the County of Tripoli which had central pillars on both floors supporting four groin vaults, one in each corner. Red Tower itself seems to have had a solid dividing wall on the ground floor and two pillars on the upper.

Pringle's work in the lordship of Caesarea shows us a pattern of castle building very different from the grander structures usually associated with Crusader castles. These simple towers show no great ingenuity and military

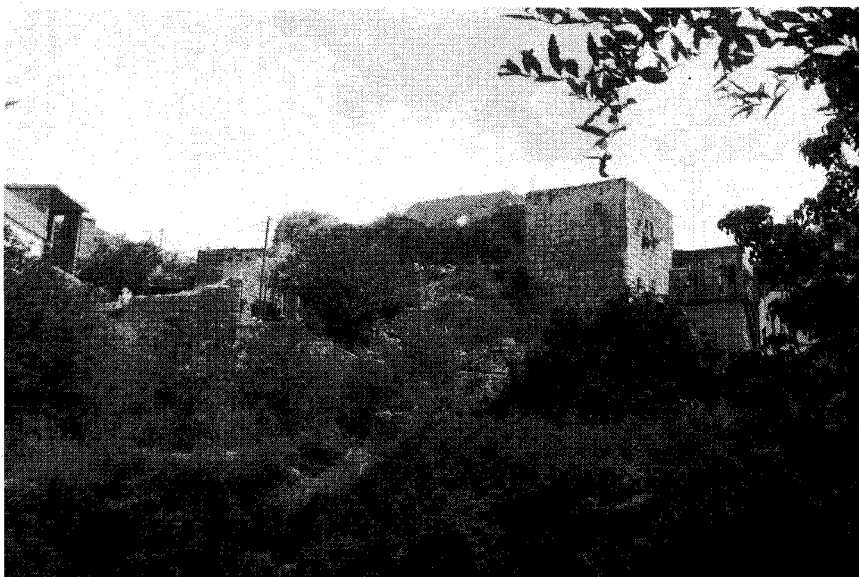


Plate 9 Chastiau dou Rei (Mi'liya), twelfth-century: general view from northwest showing corner tower of this enclosure castle and, to the left, part of the north curtain.

science but they were nonetheless useful fortresses. Caco was finally taken by the Mamlukes in 1265 and its loss was grievously felt by the Crusaders of Chastel Pelerin. In 1271 King Hugh of Cyprus and Jerusalem and Prince Edward of England, then on his Crusade, launched a major attack on Caco which a contemporary describes as 'Very strongly surrounded by ditches of water' and Baybars himself felt obliged to mobilise an expedition to relieve it. It would be wrong to see these castles as primitive or simple designs later to be replaced by more elaborate structures. They were small and simple because they were built to accommodate the small and not particularly wealthy households of the knights who settled these areas. If they resemble the smaller stone castles of western Europe, it is because the society which produced them in the early decades of the twelfth century attempted to replicate the structures of its homelands. Others were built more simply as places of refuge from enemy raids or storage places for valuables.

Towers were the most common form of baronial fortification in the twelfth-century kingdom but they were not the only one. Substantial remains of an enclosure castle still exist as Chastiau dou Rei much further north in the kingdom (plate 9). Its name suggests that it was built by one of the kings of Jerusalem, possibly by that great castle builder Fulk, though it only appears in the records when it, and the thirty-six casals (villages) attached to it, were passed on to baronial families from the 1160s onwards. The castle now stands



Plate 10 Mirabel, probably early twelfth-century with eighteenth-century rebuilding: general view from northwest. The northwest tower of the Crusader enclosure can be clearly seen, with the donjon behind largely enveloped in eighteenth-century buildings.

at the core of the large Christian village of Mi'liya in Galilee and the houses of the old centre of the village are built into the towers and court. The castle stood on the summit of a small knoll and was about 40 m square with projecting, square towers at each of the corners. There are some traces of ranges of buildings along the insides of the walls. Interestingly, it was acquired in 1220 by the Teutonic Order but in 1228 they effectively abandoned it and moved to the nearby ridge castle at Montfort; perhaps the experiences of 1187–9 when so many castles fell to Saladin convinced them that the enclosure plan was no longer strong enough to withstand the siege techniques of the early thirteenth century. Certainly, while some of the towers of the plain of Sharon, like Caco, were used in the thirteenth century, none of the simple enclosure castles seems to have been refortified by the depleted Crusader forces of that time. New designs were required to combat new threats.

Another baronial courtyard castle can be seen at Mirabel (plate 10), the centre of a lordship established by King Fulk for Balian of Ibelin between 1134 and 1143, and the castle was probably built at this time. It stands on a small hill overlooking the road which led from Jerusalem to Caesarea and Acre and the lush pools and springs which the Crusaders called Sourdes Fontaines (the Deaf or Silent Springs). The castle itself was much rebuilt in Ottoman times but enough remains to show that the Crusader building was an enclosure castle protected by corner towers with a thick-walled central keep (plate 11).³³

The Principality of Galilee had been independently conquered originally by Tancred, a Norman from southern Italy who went on to become Prince of

THE TWELFTH-CENTURY KINGDOM OF JERUSALEM

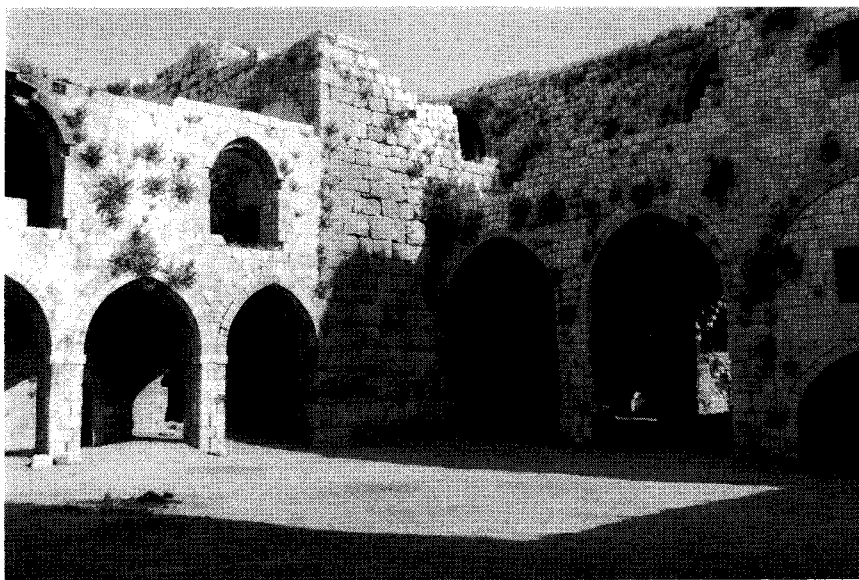


Plate 11 Mirabel: interior of courtyard looking northwest. The south-east corner of the donjon can clearly be distinguished from the later building by the large size of the blocks.



Plate 12 Bet Shean (Beisan), twelfth-century: general view from northwest.

This Crusader tower seems to have been surrounded by a bailey. The Crusader work can be distinguished from later work by the large size of the blocks, almost all re-used antique masonry from ancient Scythopolis. The castle is currently being cleared of later accretions.

Antioch. He built no castles in his short tenure but fortified the cities of Tiberias and Bet Shean (Beisan) (plate 12). The Crusader fortress at Tiberias, undoubtedly one of the more important urban castles they built, has completely disappeared, but its position by the Sea of Galilee, on the southern walls of the town, has recently been established and surviving seventeenth-century representations suggest an enclosure fortress with square corner towers.³⁴ At Bet Shean a rectangular Crusader castle survives and is currently being disengaged from the surrounding later buildings. Tancred was succeeded by an associate of the house of Bouillon, Hugh of St Omer, who determined to build up the fortifications of his domain. Like his king, he looked east across the Jordan to expand his territories. Here he cast covetous eyes on the plains of the Golan Heights and the Hawran, the area the Crusaders called the *Terre de Sueth* and which Frankish sources describe as rich in wine, corn, oil and good pastures for beasts.³⁵ In 1105 King Baldwin I had founded a castle to exploit these lands at a site still known as *Qasr Bardawil* (Baldwin's Castle). Aerial photographs show that it was a promontory fort at the join of two steep wadis.³⁶ The attempt to establish a permanent Frankish presence in this area was not a success: Tughtagin of Damascus attacked and destroyed the site in the same year, leading the garrison captive to Damascus. Thereafter the Christians were more circumspect and kept a presence in the area only in the remarkable cave-castle at al-Habis Jaldak.

Hugh is credited with a number of castles within Galilee itself. It was probably he who built the first castle at Saphet, a strong position on an isolated hill-top. The foundation is recorded in Arabic sources³⁷ in 1101–2 but nothing of the original structure now remains. In 1107 he constructed another castle destined to survive until the end of Frankish rule at Toron. William of Tyre explains that Hugh often led his men from his capital at Tiberias to attack Tyre (which remained in Muslim hands until 1124) but that on the 48 km journey they would be harassed by the enemy. He built Toron as a refuge to shelter them before and after attacks and the chronicler goes on to comment how, now its immediate military purpose had disappeared, it was still valuable as the administrative centre of a flourishing district:

This place, famous for its salubrious air and delightful climate, lies in the tribe of Asher between the sea and Mt Lebanon and is about equally distant from the two cities, Tyre and Banyas. The soil is very fertile and admirably adapted to the cultivation of vines and trees. It also produces abundant crops under the care of the farmer. Consequently this site not only offered its founder advantages well suited to his needs at the time, but even now [c. 1180], because of its rich soil and the excellence of its famous fortifications, it is of the greatest benefit to the city of Tyre and the whole locality.³⁸

Here we have the Crusader castle as the centre of a smiling and prosperous country estate and it was here at that time that the Arab traveller Ibn Jubayr

THE TWELFTH-CENTURY KINGDOM OF JERUSALEM

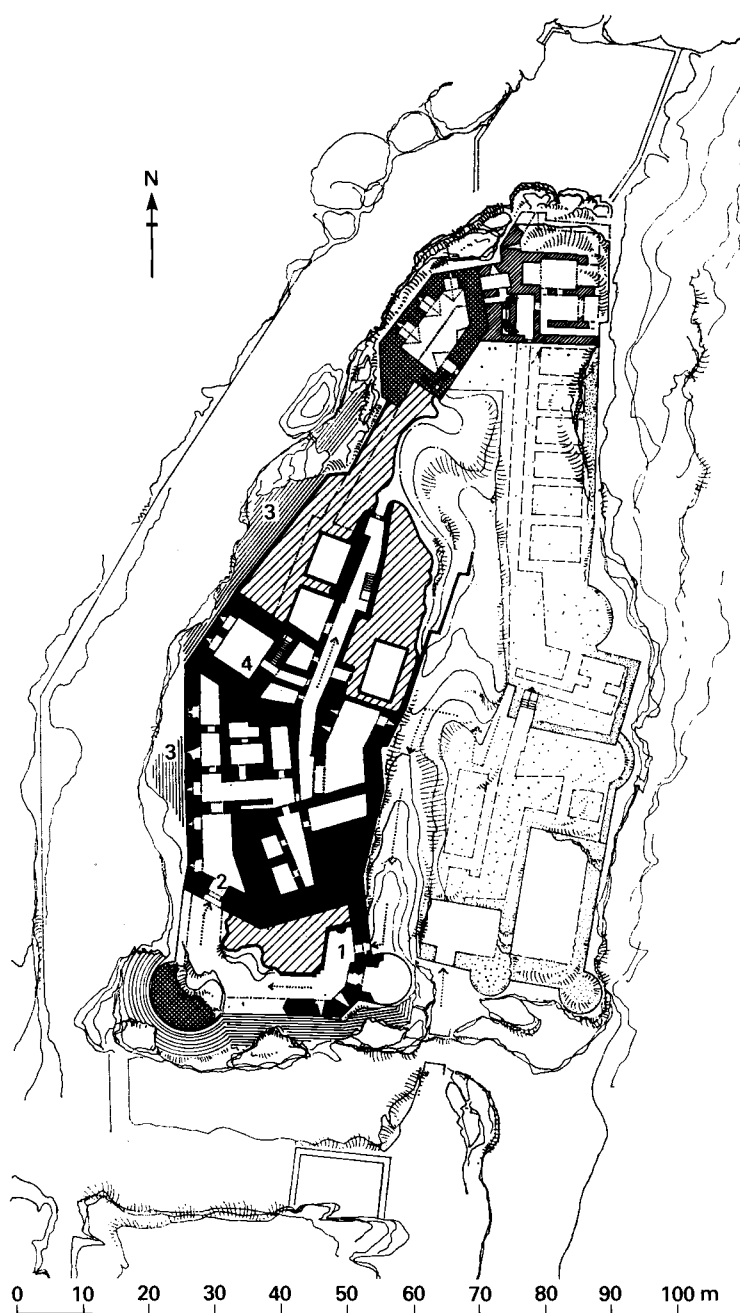


Fig. 3 Beaufort: plan. Crusader work is indicated in black; Arab work of 1190–1240 is cross-hatched. The castle stands on a cliff-top site, overlooking the Litani river to the east. The lower, east bailey is Arab work. 1. Gate to Crusader fortress; 2. gate to inner bailey; 3. glacis; 4. donjon.

CRUSADER CASTLES

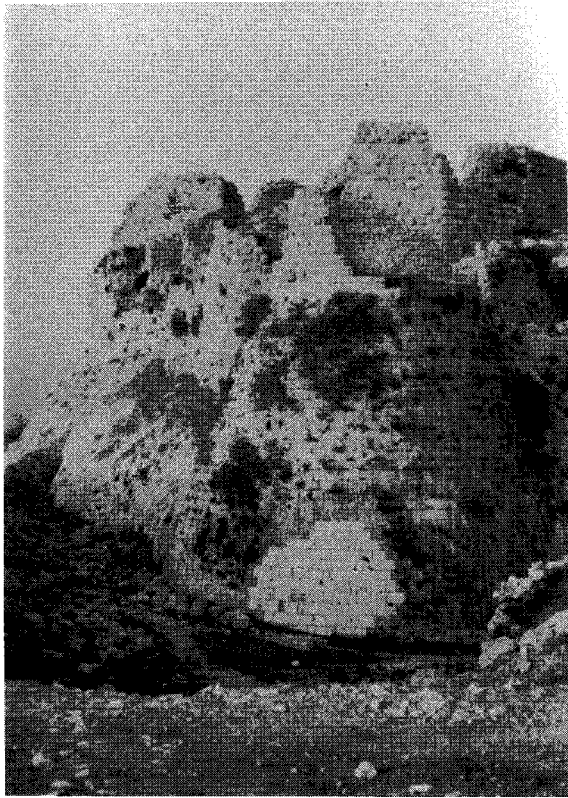


Plate 13 Beaufort (Qal'at al-Shaqif), after 1139: from south. On the left-hand side is the Crusader glacis and curtain wall with the top of the donjon projecting above it. Upper right, Crusader wall of upper bailey. The round tower in the foreground is part of the Arab strengthening of the castle after its first fall in 1190. The photograph is taken from the outworks where Muslim siege engines were mounted in 1190 and again in 1268.

and his caravan were obliged to pay their dues on their way from Damascus to Acre. Toron was completely rebuilt by a local Lebanese lord, Zahir al-Umar, in the eighteenth century, and only fragments of Crusader masonry survive.

At about the same time Hugh also built the castle of Chastel Neuf (Hunin). This was in a spectacular position: to the west lie the rugged hills of upper Galilee, to the east the land falls dramatically some 600 m to the fertile and much coveted plains around Banyas and the headwaters of the Jordan while the northeastern skyline is dominated by the snow-covered massif of Mount Hermon. The land was rich and very well watered but it also lay on the exposed frontier between Christian and Muslim territory. At some periods in the twelfth century, the revenues of this area were divided peacefully between

Christians and Muslims. Chastel Neuf provided a centre for this lordship and a staging post on the road to Banyas when this was in Crusader hands. Of the Crusader structure, only the rock-cut ditch and a few fragments of masonry survive, showing that it was a rectangular enclosure, about 86×65 m, without any large projecting towers. Nothing of the interior can now be distinguished.³⁹

In 1139 King Fulk captured a fortified site known as Qal'at al-Shaqif which the Franks were to know as Beaufort.⁴⁰ It stands in a dramatic situation high above the Litani river, now in southern Lebanon. The castle site is protected on the east by a sheer precipice which falls to the Litani 300 m below (fig. 3). On the west side the ground slopes more gently to the village of Arnun and it was here that the original builders concentrated their defences. On the north the castle is protected by a vast rock-cut basin. The site was handed over by Fulk to the lords of Sidon and it seems that building work began very soon after its capture. The castle passed into Muslim hands in 1190, back into Frankish hands in 1240 and then again into Muslim hands in 1268. At each stage the defences and accommodation were altered so it is not easy to reconstruct the twelfth-century work.

The fortress was on two main levels. A lower court lay to the east overlooking the Litani valley but nothing of the earliest phase remains in this part. Twelfth-century Frankish work does, however, survive in the upper bailey (plate 13). The main feature was a donjon, a solid two-storey structure of typical Crusader design, placed in the middle of the west wall where the castle was most vulnerable, like the almost contemporary donjon at Saone in the Principality of Antioch. A considerable length of the west wall of the inner bailey still survives, protected at the foot by a small glacis of dressed stone but without projecting towers. The south wall of this inner bailey is extant with a fine pointed entrance arch protected by a slot machicolation (plate 14). Also surviving is the entrance from the lower bailey to the inner fortification, but both the southern and northern ends of the castle seem to have been badly damaged by siege engines in the 1190 campaign and were rebuilt by the Muslims. Immediately before Saladin's assault the inner castle was modified, probably with the intention of providing more covered space and protection from missiles; as at Saone, much of the courtyard around the donjon was built over. Both the donjon and the entrance gate show well-cut bossed stonework which is characteristic of much Crusader building, the stones around doors and windows having almost flat, smooth centres while those in the rest of the donjon are more grossly rusticated.

The castle was the scene of Reynald of Sidon's devious resistance to Saladin, recounted at some length in the Arab sources. Reynald was one of the survivors of the battle of Hattin (July 1187) in which Saladin had destroyed the Crusader army. He was also, by the testimony of the Muslim authors, a

CRUSADER CASTLES

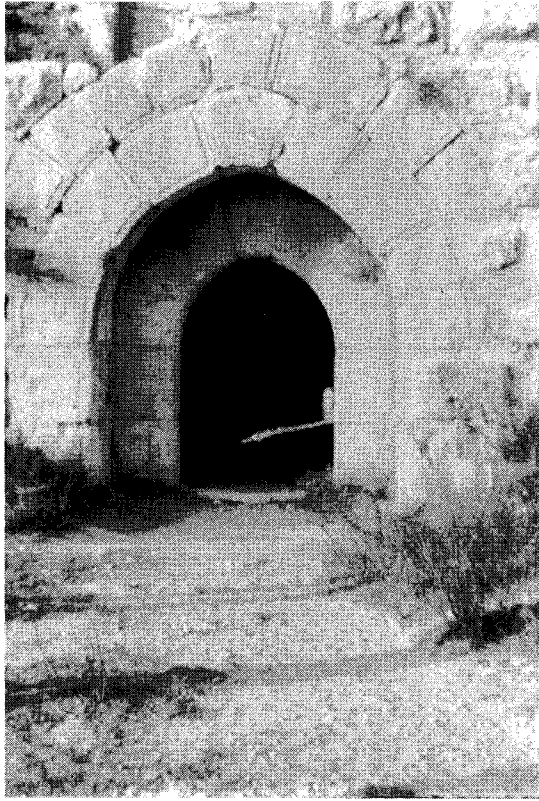


Plate 14 Beaufort: gateway to upper bailey from south. Note the finely cut masonry with lowered margins, typical of Crusader work.

cultivated and charming man who spoke good Arabic. At the end of April 1189 Saladin had encamped at Marjayun, near the castle, and was preparing to lay siege to it. Reynald presented himself at the Muslim camp and soon made friends with Saladin. He told him that he wished to surrender the castle, for he was really a Muslim sympathiser, and go to live in Damascus but unhappily his family were in Tyre, then held for the Christians by Conrad of Montferrat, and he would have to wait until he could get them out. Accordingly he was given three months grace during which he quietly repaired damage to the castle and brought in supplies. When his time was up the engaging Reynald again presented himself and explained how some of his family were still in Tyre and he needed some more time. Now Saladin began to be impatient, especially as the delay was allowing Guy of Lusignan to begin the siege of Acre. Reynald was obliged to order his men to surrender but, perhaps by prior arrangement, they refused. Reynald was confined first in Banyas and then in Damascus but when the garrison did finally capitulate in

April 1190, one of the conditions they made was that Reynald should be released. He was, and in fact later met Saladin again on friendly terms when acting as an ambassador for Conrad of Montferrat. Even in the disastrous situation which followed Hattin, a strong castle and a shrewd leader could prove a major obstacle to the enemy.⁴¹

The most impressive castle of the mid-twelfth century was constructed beyond the Dead Sea in the lordship of Oultrejourdain. When Baldwin I had caused the castles at Montreal and Li Vaux Moise to be built, he seems to have kept them in royal hands. Fulk, however, decided to grant out Oultrejourdain and establish it as a lordship in its own right. In 1142 the lord of Oultrejourdain, Paganus Pincerna, or Pagan the Butler, transferred the centre of his power from Montreal to Kerak, further to the north (not to be confused with Crac des Chevaliers, though the Crusader sources spell them both in the same way).⁴² Here

[writes William of Tyre] upon a very high mountain surrounded by deep valleys the city of Petra had once been located [a misidentification of the ancient site, of course]. For a long time it had lain in ruins, utterly desolate. Eventually, during the reign of Fulk, the third King of the Latins in the Orient, one Paganus, called the Butler, Lord of Oultrejourdain, built a castle [*presidium*] on this site . . . The successors of Paganus, namely Maurice, his nephew, and Philip of Nablus, had added a moat [*vallum*] and towers to make the place more secure. Outside the fortress, on the site of the earlier city, was now a settlement [*suburbium*] whose inhabitants had put their homes there as a fairly safe position: east [actually south] of them lay the castle, the best of protection, while on the other sides the mountain was surrounded by deep valleys.⁴³

Why Pagan made the move is not stated but it may have been because it is closer to Jerusalem; indeed on a very clear day you can actually see the Mount of Olives from the castle, and it had good access to the Dead Sea and thence by boat to the west bank.⁴⁴ Here he and his successors constructed a vast but rather crude fortification. The position had many natural advantages (plate 15). The site of Kerak town is a triangular plateau which extends northwards from the main massif and it is bordered on all three sides by steep slopes leading down to the ravine of the Wadi Kerak. Only at the southern apex did the site join onto the main plateau of Moab where it was overlooked from the adjoining hill. The castle was built to secure this narrow neck of land (fig. 4). The natural defences were augmented at the south end by a rock-cut ditch in which a reservoir was constructed, wide enough to keep siege engines at a distance (a technique also used at Beaufort). At the north end, where the town is situated, there is another ditch, narrower than the southern one but much deeper: Ibn al-Athir says it was originally 60 cubits (30 m) deep, which would make it about the same as the ditch at Saone, but it has subsequently been filled up almost completely

CRUSADER CASTLES



Plate 15 Kerak (Crac), twelfth-century and later: general view from east. The length of the castle ridge can be seen, with the town to the right (north). The Crusader curtain wall, with its square towers, runs along the crest of the ridge; beneath it is the glacis. The great ruined tower at the right-hand end overlooks the trench which separated castle from town. The great tower at the left (south) end is later Mamluke work, possibly replacing a Crusader donjon demolished in one of the sieges of the 1180s. At the extreme left is another rock-cut ditch and open cistern which cut the castle off from the mountains of Moab to the south.

The Crusader work is built of the hard volcanic stone, roughly shaped into rectangular blocks but without any of the fine stonecraft we see in twelfth-century work at Beaufort or Saone, either because the masons were not available in this remote area or because the stone did not lend itself to fine shaping. The later Arab work, by contrast, uses a finely drafted limestone from a nearby quarry and is easily distinguishable.

The walls of the castle run along the upper contours of the ridge. On the west side there is a lower bailey, as at Beaufort, but the surviving fortifications are later Muslim work, although Deschamps has pointed out that fragments of twelfth-century masonry show that there was a lower bailey on the site in Crusader times. The western flank of the inner bailey still shows the rough Crusader stonework but it is on the long eastern flank that the twelfth-century defences can best be seen (plate 16). The structures on this side are quite complex and Deschamps suggests that there are two phases, an inner curtain wall to which was later added an outer curtain separated from the earlier

THE TWELFTH-CENTURY KINGDOM OF JERUSALEM

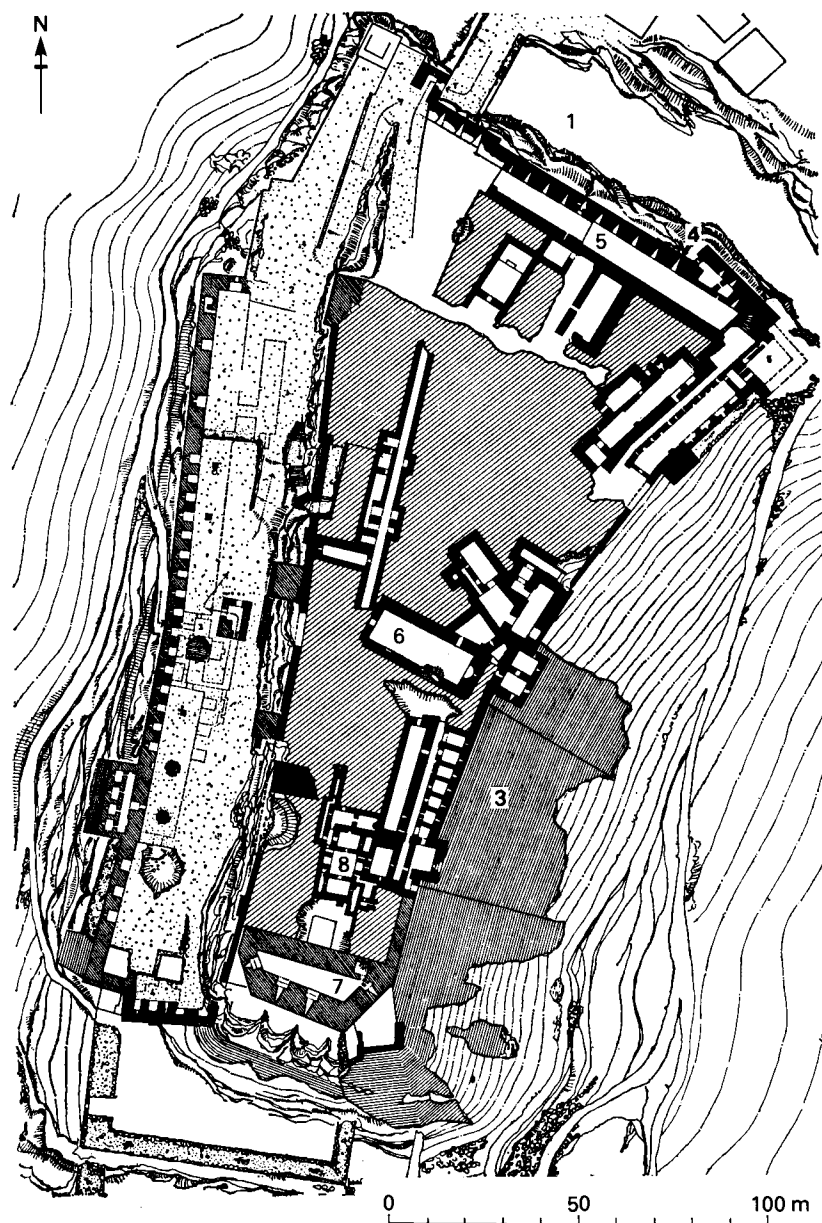


Fig. 4 Kerak: plan. Crusader fortifications are indicated in black; later Muslim work is hatched. 1. Ditch separating castle from town; 2. lower bailey; 3. glacis; 4. original entrance; 5. vaulted halls; 6. chapel; 7. Muslim donjon; 8. palace, now known to be Muslim work.

CRUSADER CASTLES

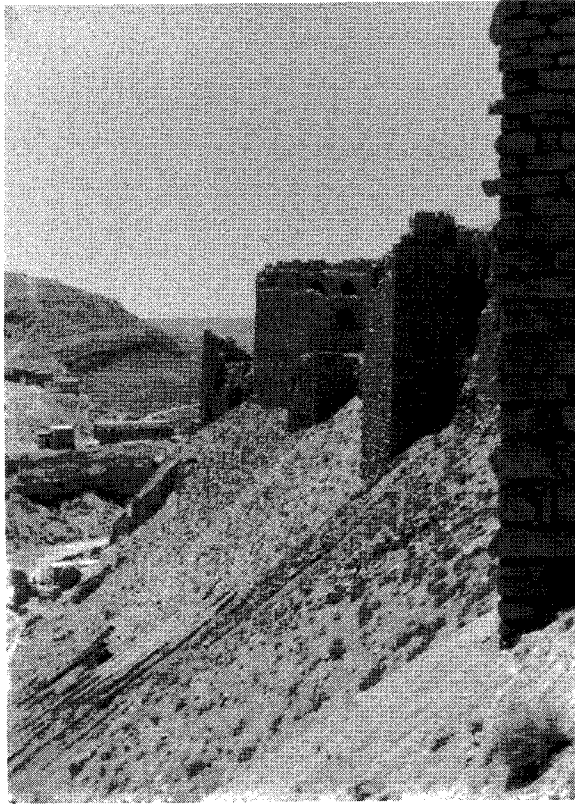


Plate 16 Kerak: east wall looking south. The square Crusader towers with their crude, rough-hewn masonry surmount the glacis; note the arrow slits to provide flanking fire. The high block with the arches near the far end is Mamluke work.

structure by a vaulted passage. This new wall was strengthened by three surviving rectangular towers projecting boldly from the line of the curtain wall and providing covering fire with the sites of two more, one at each end, still visible. Below this curtain wall, sloping dramatically down the sides of the Wadi, is a great glacis which is one of the most impressive features of the castle, presenting a steeply inclined and entirely smooth surface to any assailant from that direction.

The wall which faces the town is a massive, chunky curtain with arrow slits pointing directly out from the wall (plate 17). It was on this side that the entrance lay, not where the present arch, which dates from the Muslim period, leads into the lower court, but further east where a bend in the wall, at first sight inexplicable, sheltered in its re-entrant angle a small gate no bigger than a postern which led directly to a chamber and then to a great vaulted hall which probably served, amongst other things, as a stable.

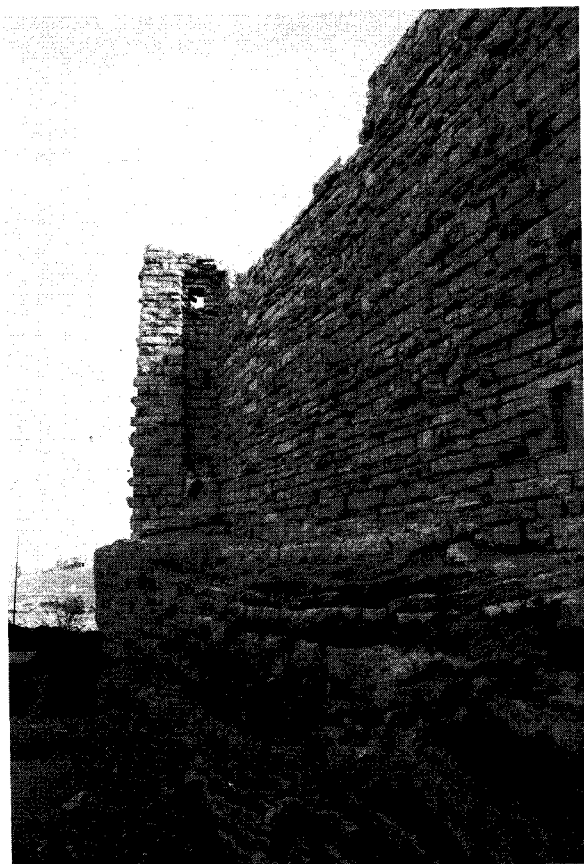


Plate 17 Kerak: north wall on the town side, looking east. The rock-cut ditch to the left was originally much deeper and could be compared with the one at Saone. Flanking fire was provided by the salient at the end which had a postern gate at ground level in the re-entrant angle.

We would expect to find the strongest defences at the south end where the site was most vulnerable, but the fortifications here were largely destroyed at the time of the castle's conquest by the Muslims and rebuilt in Ayyubid and Mamluke times. The outer line of defence was a rock-cut reservoir running across the neck of the land and about 20 m wide. As in other castles (Beaufort, Akkar) this served as a water store in peacetime and a moat in time of war. Some fragments of the Crusader curtain wall at this end of the castle survive but the mighty oblong bastion there dates from the Muslim period. It may well be that there was a Crusader donjon on this site in the twelfth century; certainly by analogy with the contemporary castles at Saone and Beaufort, we would expect to find it here at the most vulnerable point, but if so, no trace of it survives.

CRUSADER CASTLES

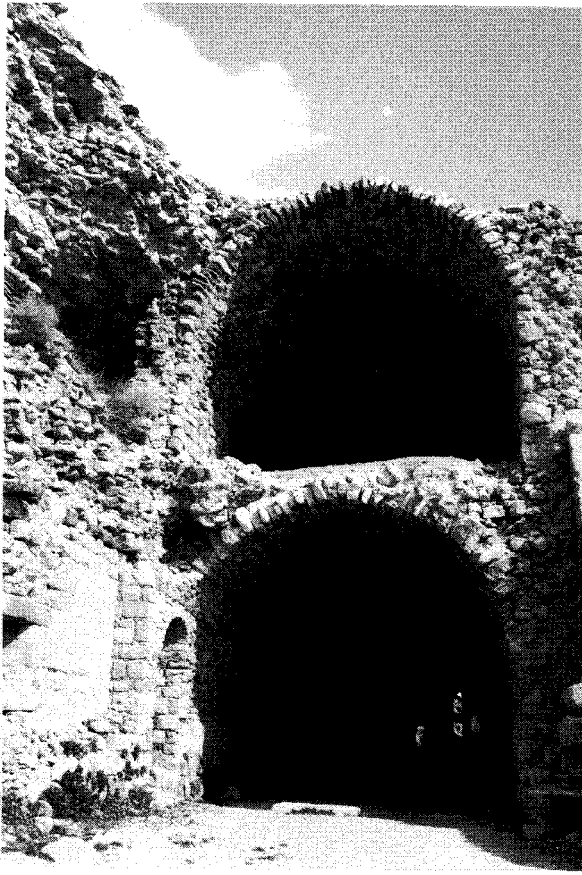


Plate 18 Kerak: vaulted halls along inside of north wall. These cavernous halls, on the scale of Victorian railway tunnels, provided accommodation, stabling, access to arrow slits in the wall itself and shelter from in-coming missiles.

Apart from great long vaults along the inside of the north wall, with roughly built pointed barrel vaults, it is difficult to distinguish very much in the chaos of the interior which was, in any case, much remodelled in the Mamluke period. The maze of vaults, subterranean passages and mysterious holes which lie under the surface of the inner bailey remain to be explored, though a chapel and a small Mamluke palace have been distinguished.

In 1177 the lordship of Oultrejordain had been granted to Reynald of Chatillon who had married the heiress Etienne de Milly, 'la dame dou Crac'. His notorious exploits, including launching ships on the Red Sea to attack Mecca and the looting of Muslim caravans, meant that his exposed lands were a prime target for Muslim armies, and the castle at Kerak was besieged no less than three times in the 1180s. In October 1183 Saladin's army

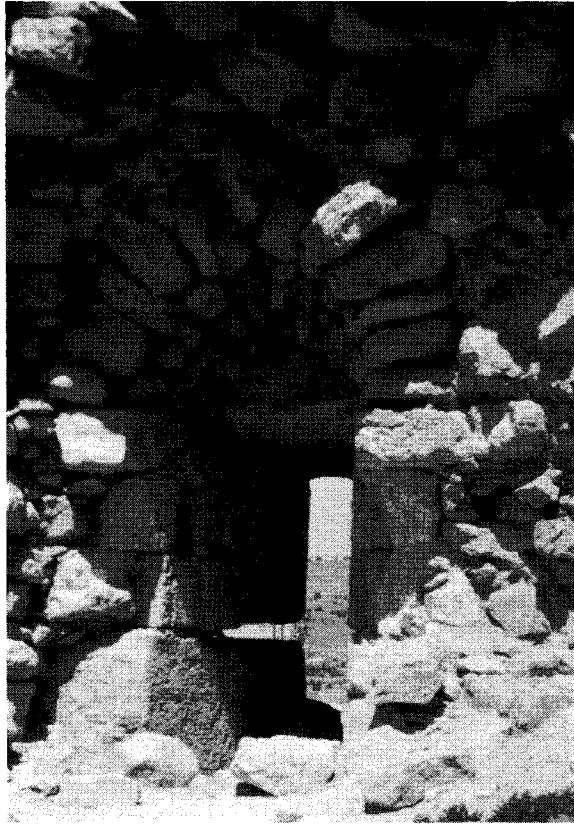


Plate 19 Kerak: embrasure and arrow slit in north wall, showing the massive and vigorous masonry typical of the castle.

was able to take the town by assault which caused a mass of refugees to flood into the castle. The Muslims would have forced the gate there and then but for the firmness of one knight called Iven who held the gate until the bridge across the ditch had been destroyed. Saladin then began a regular siege, setting up six engines in the town and two on the mountain at the opposite end of the castle. Attempts by the garrison to set up siege engines of their own were abandoned because of the danger from incoming missiles and William of Tyre gives a vivid word-picture of the besieged cowering in the castles:

These dangers, which caused men to shake with fear, affected not only those who crept out of their hiding places to the battlements [*propugnacula*] to hurl weapons or stones or to spy on the enemy forces but also those who had fled to the innermost chambers and most secret places. They were terrified by the crash and roar of the incoming missiles, which seemed like thunder, and they awaited the bolt fearing all the time that the building would be destroyed and collapse on top of them.⁴⁵

This account illustrates the power of siege engines, not least in psychological warfare, and the importance of having, or not having, engines for defensive purposes. But it was also from this siege that we have one of the most famous accounts of chivalry in action. When the enemy approached, a wedding was being celebrated between the King of Jerusalem's sister Isabel and Humphrey IV of Toron, son of Etiennette de Milly. Indeed, along with the garrison and the other refugees, there were many musicians and entertainers who had come for the party in the castle. Etiennette sent messengers to Saladin, reminding him how, when he was a prisoner in the castle, he had held her as a child in his arms. Touched by this, he enquired which tower the wedding party was in and ordered his men not to bombard it.

By December, Saladin had made very little progress and the threatened arrival of the army of the Kingdom of Jerusalem persuaded him to give up. He was back again at the end of July the next year (1184) and began another siege. The first assault failed, not least because the defenders had built their own engines over the winter. Then Saladin concentrated on filling up the ditch between the castle and the town and built elaborate shelters for his men. Once again, however, the impending arrival of a relieving army forced him to abandon the siege after four weeks. The third siege was begun in March 1188 by Saladin's nephew, Sa'd al-Din. Once again the garrison defended themselves with determination but this time the situation was very different. After the defeat of the army of the Kingdom at Hattin the year before, there was no prospect of relief, and in the end hunger forced the defenders to give in. It is said that when they surrendered in October/November, the Muslims were so impressed by their courage that they allowed them to go free.

Among the strangest of the Frankish fortifications of the twelfth-century Kingdom of Jerusalem are the two cave-castles, al-Habis Jaldak and the Cave of Tyron.

We do not know the Frankish name for the cave which the Arab sources call al-Habis Jaldak but it has been clearly identified with the cave-fortress described by William of Tyre.⁴⁶ It was 'built' on the far side of the Jordan in the side of a cliff overlooking the Yarmuk river valley. The failure to hold the castle of Qasr Bardawil convinced the Franks that they could not build a conventional fortress in the Terre de Suete: on the other hand they made a series of agreements with the rulers of Damascus to share the crops and revenues of this fertile land and they needed a base from which to enforce their rights. Both the Princes of Galilee and the Abbey of St Mary of Josaphat had extensive properties in this area. The Franks established a presence in this inaccessible cavern some time before 1112 when it was first taken by the Muslims. The cave overlooks a deep wadi and the main Yarmuk river valley, commanding an extensive view over the plains to the north: a superb observation point but hardly a congenial residence. The natural cave had been extended to form

chambers on three floors connected by ladders and stairs cut in the rocks. Water was collected in cisterns and the only approach was by a narrow track along the cliff face. It was secure enough but, as its Muslim garrison found in 1182 (it had been taken from the Franks a few months before), passive defence, sitting in the cave while the enemy methodically set about digging you out, hearing his picks at work night and day, could lead to despair and surrender.

Once again, William of Tyre gives a vivid account of the warfare:⁴⁷

On arriving here the Christians judged that it would be desirable to besiege the stronghold . . . Accordingly a camp was established before the castle just named, and vigorous efforts were made to force those inside to surrender. The fortress was extremely well defended. Its situation was such that it was assailable only through the upper part and not even there unless the rocks were cut through to the dwelling place itself. It was decided therefore to put stone cutters to work on the upper portion. All the helpers needed were provided as well as guards so that they could work in safety and without danger of attack.

The cave was located on the side of the very high mountain. Approach to it was very difficult along a path hard even for a single footsoldier free from all encumbrance. The path approaching from the side was scarcely a foot wide, and below yawned a deep and dreadful precipice which extended to the bottom of the valley. This cave had three stories, one above the other. A wooden staircase with narrow openings connected the different levels.

Since this was the only method by which it could be attacked, the Christians tried to cut into the cave from above, as we have said, in the hope that in this way they might be able to penetrate into the first and upper level of the citadel. This was their aim and intention and every effort was made to attain it. All the workmen needed were placed in position and helpers provided who, as fast as the bits of rock and stone were cut away, threw the refuse down into the valley below. In order that the work might proceed without interruption, shifts were arranged during both night and day so that when those on the first crew were weary, their places were taken by fresh workers who had the necessary skill and ability. The labour progressed quickly because of the number and enthusiasm of the workers and also because the rock itself was easily cut, for it was of a cretaceous nature and readily penetrated except where veins of very hard flint obtruded which often damaged the iron tools and hindered the eager workers. The bits were rolled down into the valley below to clear the place, as has been explained. All these passed in full view of those shut up inside the cave and greatly increased their fear for all the time they could anticipate the moment when the work would be finished and an entrance achieved by force.

Our army was divided into two sections: one part, as has been said, set up camp on the top of the hill occupied by the cave where they could more easily protect those engaged on the work from the wiles of the enemy. The other part stayed in the plain below to prevent anyone going from or coming to the besieged. Occasionally some of the latter force approached the lower level of

CRUSADER CASTLES

the cave along the narrow path described above and attempted to attack those inside. However, these efforts were futile for within; well supplied with food and weapons, was a force of about seventy strong and valiant men. These experienced men had been chosen by Saladin as he was about to depart and he had entrusted the stronghold to their vigilant care and to those on whose fidelity and steadfastness he had special reason to rely.

The work had now reached the point where the almost incessant blows of the hammers allowed the garrison in the cave no rest. As the strokes redoubled, the whole mass seemed to shake and tremble so that fear that a forcible entrance would be made gave way to apprehension that the whole cave, shattered by repeated blows, might suddenly collapse and crush all those inside. It was useless to hope that any aid would arrive, for Saladin had departed with all his troops to far distant parts from where he could not easily return. Finally after the siege had lasted three weeks or a little longer, they sent an embassy to the King and, through the intervention of the count of Tripoli [Raymond III, also prince of Galilee] obtained permission to depart freely to Bosra. The condition was made that they should surrender the citadel and give up the arms they had borne and all their equipment.

The cave at Tyron⁴⁸ was fortified by the Franks at some time between 1134 and 1165 and it remained intermittently in Latin hands, an outpost of the lordship of Sidon, until Julien handed it over to the Teutonic Knights in 1257. It fell to the Muslims just three years later in 1260. Like al-Habis Jaldak the fortress is half way up a sheer cliff commanding dramatic views over the main route from the Beqa' valley to Tyre and Sidon and we should probably think of it as an observation point manned in times of war. An ingenious system of canalisation brings water from a spring about a kilometre away. Access for people is by a narrow path along the face of the cliff and at one point it is necessary to go on hands and knees along a low, narrow ledge above a sheer drop of 300 m. The chambers in the rock which form the accommodation front on to a small paved terrace and the complex is provided with rock-cut grain stores and cisterns. The garrison can never have been large but the site was obviously considered to be of considerable importance: in 1182 Saladin wrote to the Caliph claiming that the Mosulis, with whom he was in dispute, were prepared to hand over al-Habis Jaldak and the Cave de Tyron to the Franks and in 1250 it is mentioned along with such important sites as Tyre, Sidon, Beaufort and Saphet in the treaty St Louis made with the Sultan as one of the strong points the Franks were able to retain.

THE CASTLES OF THE MILITARY ORDERS

As well as these royal and baronial castles, the twelfth century saw the building of the first castles of the Military Orders, the Hospitallers and the Templars. As far as we can tell from the often fragmentary remains, the twelfth-

century castles of the Military Orders in the Kingdom of Jerusalem were mostly enclosure castles rather than simple towers, the use of the donjon by itself being, in the main, confined to the castles of secular lords. The exceptions to this general rule were isolated posts providing a refuge on exposed and dangerous highways, like Le Destroit by Chastel Pelerin on the coast road from Acre to Caesarea and Bait Jubr al-Tahtani on the pilgrim road from Jerusalem to Jericho. Recent archaeological work has added substantially to our understanding of the design of these castles.

It was in about 1120 that Hugh of Payens founded an Order of knights to protect pilgrims on their way to the Holy Sepulchre and the Order took the name of Templars from the position of their headquarters in Jerusalem near the Dome of the Rock which the Crusaders knew as the *Templum Domini* or Temple of the Lord. They soon began to construct fortifications.⁴⁹ The archives of the Order were lost after its dramatic and brutal suppression in the early fourteenth century so we have no clear dates for the foundation of most Templar castles but it was probably soon after the beginnings of the Order that they began to build enclosure fortifications to serve as local bases to defend pilgrim roads at dangerous places.

Two of these guarded approaches to Jerusalem from the coastal port of Jaffa, the usual route for pilgrims visiting the Holy City. *Castrum Arnaldi*, already mentioned above, was originally built in 1132–3 by the patriarch and citizens of Jerusalem, but it was later entrusted to the Templars. It lay on a spur between two valleys in fertile land where the road from Jaffa begins the ascent to Jerusalem. The ruins have never been excavated but it seems to have been a simple oblong shape, about 40 m from east to west, with one rectangular tower projecting from the west wall and, possibly, vaulted chambers in the interior.⁵⁰

Some 8 km to the southeast, guarding the entrance to the southern route through the hills to Jerusalem (now the course of the main road) lay the Templar castle of *Le Toron des Chevaliers* (so called to distinguish it from the Toron in Galilee). The unimpressive ruins of the castle stand in a fine position on a low, isolated hill with a commanding view over the entrance to the valley and the well-tended orchards and gardens of the monastery of Latrun immediately to the west. It is not known who built it originally but it was in the hands of the Templars before 1187. The oldest part was a tower which was later surrounded by a rectangular enclosure, 72 × 55 m, with vaulted chambers along the insides of the walls. Outside this there was a polygonal outer court whose walls followed the line of the hills; one rectangular defensive tower survives from this.⁵¹

Further north, in Galilee, the Templars built the castle of *La Fève* near a water source on the road which led through the vale of Jezreel from Acre to Bet Shean.⁵² The site of *La Fève*, on an ancient tell, is almost completely

obscured by later building but it has been possible to reconstruct something of the plan from existing remains, old descriptions and aerial photographs. The castle, which was certainly in existence by 1172 and may have been built some time before, probably consisted of a more or less rectangular enclosure about 90×120 m, with vaulted chambers running along the insides of the walls. There may have been both projecting towers and an outer wall. Certainly it impressed 'Imad al-Din when his master, Saladin, conquered it in 1187.

Al-Fula [he writes] was the best castle and the most fortified, the fullest of men and munitions and the best provided. It was for the Templars a very powerful fortress, a strong place and a reliable pillar. They had there an inaccessible fountain, an excellent pasture place, a firm base; and there they spent winter and summer. It was a place where they met and received people, a place where they guarded their horses, a place where the torrents of their men flowed, a meeting place of their brethren, the residence of their devil and the place of their crosses, where their masses assembled and their fire was kindled

and he goes on to explain how the knights had all perished and the place was surrendered by the squires and servants who abandoned all its treasures in exchange for a safe conduct. The importance of the castle to the Templars is demonstrated by events earlier in the 1180s. In 1183 more than 100 Templars gathered there to discuss a disciplinary case against one of the brothers. It served as a base for the Frankish army which headed off Saladin in September 1183. In May 1187 it served as a base for Gerard de Ridefort who led 100 Templars from La Fève and elsewhere to a disastrous defeat at the spring of Cresson, near Nazareth, a calamity which presaged the complete destruction of the Frankish army two months later at Hattin. The history of La Fève is a good example of a castle in open country at a centre of communications being used as a base for military activity.

Another Templar castle of the same period guarding a road was to be found at Maldoim on the parched and barren hills overlooking the route from Jerusalem to Jericho and the Jordan valley, a route much frequented by pilgrims. Again it is a square enclosure, about 60×50 m. It has a deep moat and the traces of vaults and towers in the interior but no obvious flanking towers.⁵³

The Templars also built some isolated towers. The best documented of these is Le Destroit near the later castle at Chastel Pelerin which was built to protect the coastal road where it ran through a narrow defile. No less a person than King Baldwin I had been attacked and wounded there in 1103. 'A tower was formerly placed there', writes Oliver of Cologne in his account of the thirteenth-century building of the castle, 'on account of the robbers who used to lie in ambush in the narrow way for pilgrims going up to Jerusalem and coming down from it, not far from the sea. This tower was called Districtum because of the narrow road.' The rock-cut foundations of this fairly small

tower still survive in a small nature reserve on the low hills overlooking the sands of Athlit and the later Templar castle.⁵⁴

In 1178 the Templars built a large enclosure castle at Le Chastellet in an idyllic situation overlooking the upper Jordan, little more than a stream at this point, at the Ford of Jacob's Daughters. It was built on a massive scale; a Muslim commentator noted: 'The width of the wall exceeded ten cubits [about 6.5 m]; it was built of enormous slabs of stone, each of which measured seven cubits across, more or less. The number of slabs was more than 20,000, and each slab which was put in place and fixed in the structure cost not less than four dinars and perhaps more.' It is interesting to note the emphasis put on the expense of castle building here. The investment proved to be in vain. Saladin offered Baldwin IV 100,000 dinars (probably about the total cost of the work) if he would demolish it but he refused. The Muslims invested the castle in August; their sappers brought one of the towers crashing down in smoke and flames. The commander and many of the garrison perished and 700 survivors were made prisoner. It was the first time Muslim sappers had shown their effectiveness against a major Crusader fortification and it was a sign of things to come. The outlines of the walls, on a knoll by the river, can still be distinguished and the site is shortly to be excavated, which should shed interesting light on this very precisely dated structure.⁵⁵

Despite the fragmentary nature of the evidence, it is possible to make some generalisations about the castles built by the Templars in the twelfth-century Kingdom of Jerusalem. The clearest of these is that they tended to be on roads, especially those frequented by pilgrims, rather than being centres of estates. They also seem to have favoured rectangular, enclosure-type castles, probably defended by projecting square towers and having vaulted chambers around the insides of the walls. Both Templars and Hospitallers probably used the enclosure plan because their castles were fortified cloisters and they required space for chapel, refectory and other conventual buildings which usually seem to have been constructed on the upper floors of the vaulted chambers which ran round the walls. It is these functional considerations, rather than any following of Roman or Islamic examples, which led the Orders to adopt the rectangular 'castrum' plan.

The Order of the Knights of St John, or Hospitallers, had been founded as a charitable order to look after the welfare of pilgrims in Jerusalem before the coming of the Crusaders and seems to have acquired a military role only in imitation of the Templars.⁵⁶ Nonetheless they rapidly began to acquire existing castles and construct new ones of their own. Accidents of survival and excavation have meant that we are better informed about Hospitaller castles than Templar ones. This may be in part because the Hospitallers seem to have chosen more out-of-the-way sites. The positioning of Templar castles on important roads meant that they were very vulnerable to stone robbing. The

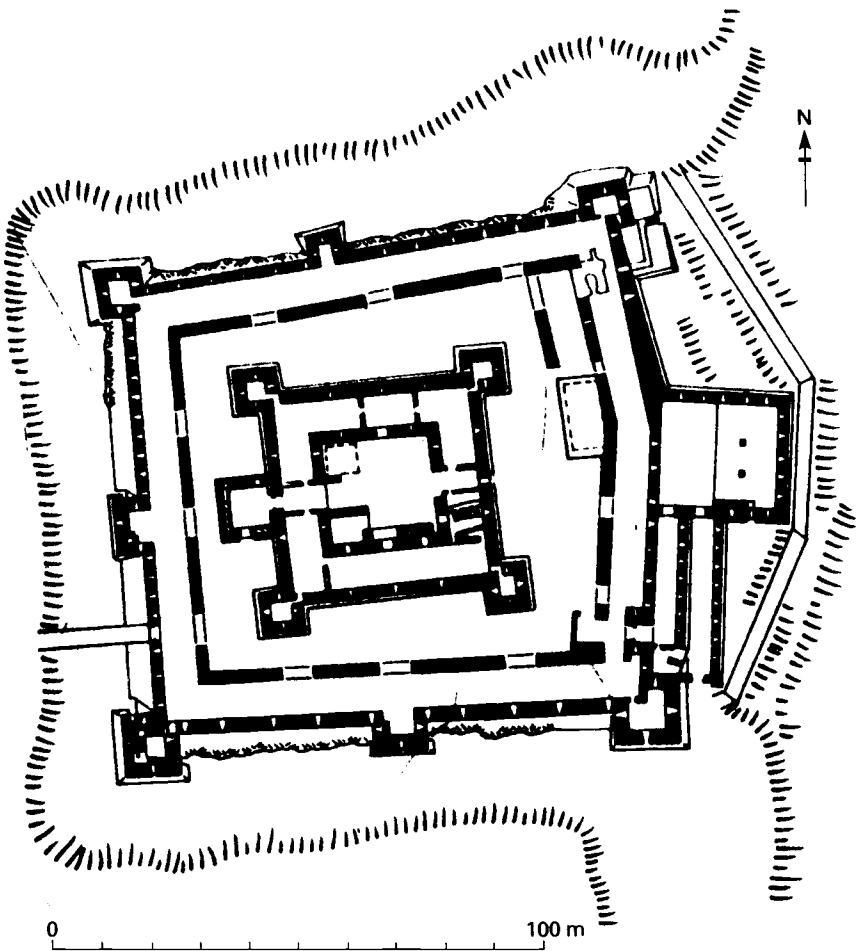


Fig. 5 Belvoir: plan. The almost symmetrical plan shows a roughly square inner court with towers at each corner and the middle of the east side. This stands in an outer enclosure, again with corner and half-way towers. Both courts are surrounded by ranges of vaulted chambers, all now unroofed. Note the postern gates, leading to the moat, in the towers of the outer walls.

Hospitallers, by contrast, seem to have built castles on their estates or in more remote positions, which has to a limited extent protected them.

Their first castle seems to have been Calansue, which they took over in 1128 and where they may have added a hall and other structures to the tower originally constructed by Geoffrey de Flugeac.⁵⁷ Their next fortification was the enclosure castle at Bethgibelin granted to them in 1136 and already discussed above. Their works soon became more elaborate. Before 1169 the Hospitallers constructed the castle at Belmont, recently excavated by the British School of



Plate 20 Belvoir, 1168 onwards: south moat and wall of outer enclosure looking east. Note the massive bastions at each corner with their sloping walls. The staircase in the left tower led from the interior, through the thickness of the tower wall, to a postern gate at the level of the bottom of the moat. The walls of the inner bailey can be seen top left.

Archaeology in Jerusalem.⁵⁸ This castle crowned the top of a gentle hill. The outer curtain, which apparently had no flanking towers, enclosed an area of about 100 × 115 m. This outer wall had a gatehouse and, like some other castles of the Military Orders, a vaulted passage running round the inside. Inside the courtyard there was a rectangular inner bailey, again with no projecting towers. There was no donjon. It is surrounded by vaulted undercrofts supporting the chapel and living accommodation of the knights, which no longer survives. The castle fell to the Muslims in August 1187 and was subsequently demolished to provide materials for the Arab village which grew up on the site.

Belmont was constructed in a haphazard and piecemeal way. Slightly later the Hospitallers built a much more systematic and developed version of the two enclosure castles. In 1168 they bought the castle at Belvoir in a magnificent position on a flat summit overlooking the Jordan valley, 'set amidst the stars like an eagle's nest and abode of the moon' as Abu Shama describes it. The site commands magnificent views north of the Lake of Tiberias and west over the rolling hills of Galilee. The stonework, black basalt and white limestone, has been revealed, crisp and clean, by the excavators. Belvoir provides a good example of the importance of archaeological excavation of Crusader

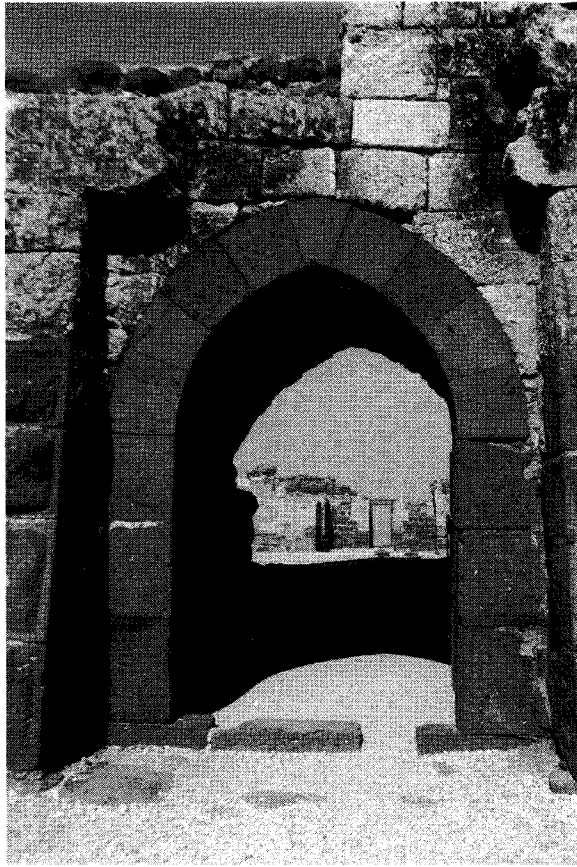


Plate 21 Belvoir: west gate of inner bailey looking east. Note the high quality of the stonework and the contrast between the black basalt and the white limestone.

castles (fig. 5).⁵⁹ Plans made before the excavations show a simple enclosure with something that might be a keep in the centre. Like many excavated mottes in Britain, what seemed from preliminary surveys to be a basic and straightforward structure turned out to be much more complex and interesting. The layout is symmetrical and logical, and is clearly the product of a carefully thought-out master-plan. The outer wall, protected by a deep dry moat, encloses a rectangle 130×100 m, making this one of the largest enclosure castles (plate 20). Massive square towers rising from heavily splayed bases protect the corners and the centres of each side. Strong stone vaults to protect the garrison are attached to the inner side of the walls. Within this outer enclosure, like a sort of castellar Russian doll, is an almost identical inner one, though here intermediate towers were only considered necessary on one side.

Once again we see the vaulted chambers surrounding a small centre court (plate 21). The whole is well equipped with defensive devices, arrow slits and postern gates allowing the garrison secret access from the corner towers to the bottom of the moat, which the defenders made good use of to launch sallies during the final siege in 1188. Living accommodation must have been limited for a garrison which cannot have been much less than 500 men and may well have been more, but at least they had an Arab-style bath in the outer court in which to relax. A hall, refectory, kitchen, workshop and stables were identified by the excavators as well as a chapel over the entrance to the inner court. The water supply was contained in two rain-fed cisterns. At Belvoir we can see clearly how the inner court functioned as a monastic cloister for the knights. Belvoir is important because it shows how developed and sophisticated the enclosure castle idea had become in the hands of the Military Orders by the end of the twelfth century. At Belvoir, as at Belmont and probably La Fève and Le Toron des Chevaliers, we can see the development of the 'concentric' castle well advanced by the middle of the twelfth century.

CONCLUSION

The castles of the twelfth-century Kingdom of Jerusalem have not, in the main, left grand or imposing remains. Only Kerak and Belvoir can rank among the finest surviving Crusader castles. Of the town castles at Acre, Tyre, Sidon, Caesarea and Tiberias, where the greatest lords lived, nothing is to be found. But these humbler remains provide a fascinating example of the use of castles as instruments of settlement, colonists' castles, even homesteaders' castles, which provide interesting comparisons with the castles of Anglo-Norman England. This colonisation process was ultimately unsuccessful. Even before the cataclysmic defeat of 1187, the smaller castle owners were selling up to the institutions, the Church and above all the Military Orders. As in much of western Europe, the second half of the twelfth century saw the demise of the independent castle holder as a political force in his own right. The events of 1187 merely confirmed that these simple castles were no match for the large-scale warfare of the late twelfth and thirteenth centuries.⁶⁰

TWELFTH-CENTURY CASTLES IN
THE NORTHERN STATES (COUNTY
OF TRIPOLI, PRINCIPALITY OF
ANTIOCH AND COUNTY OF EDESSA)



IN BOTH the County of Tripoli and the Principality of Antioch, there are Crusader castles whose ruins clearly show that they were built in the twelfth century, although the evidence for dating them is less full than in the Kingdom of Jerusalem. The great tradition of narrative history which begins with Fulcher of Chartres and is carried on by William of Tyre and his continuators is firmly based in the Kingdom of Jerusalem; it does of course deal with major events in the north but has little to say about less dramatic matters like the foundation of castles.

A different landscape also produced different styles of castle building. Apart from the area around the city of Tripoli itself, the northern Crusader states had fewer areas of flat fertile land than the Kingdom of Jerusalem. Chronicles mention Crusader castles built, mostly in the first half of the twelfth century, in the rolling hills and steppe lands beyond the Orontes river but none of these has left enough remains for us to form a clear idea of their plans.¹ Few pilgrims visited this part of the Crusader lands so there was less need for castles to protect the roads. As a result, neither isolated donjons nor rectangular enclosure plans were widely used in the northern states, except in the fertile and well-settled areas of the County of Tripoli. On the other hand the rugged limestone hills of the area lent themselves ideally to the construction of ridge castles. This development was aided because, unlike the Kingdom of Jerusalem, this was already a land of castles. The Byzantines had built a number of fortresses in the late tenth and early eleventh centuries to protect their province of Syria, with its capital at Antioch, which they took from the Muslims from 969 onwards. At Saone and Bourzey these Byzantine fortifications formed the nucleus of the later Crusader work. During the confused struggles of the eleventh century, Muslim groups had also established castles

in these rugged hills (Akkar, Margat and Crac des Chevaliers were first fortified by Muslims at this time). Both the Byzantines and the Muslims tended to build their castles on inaccessible mountain sites. Many of the Crusader castles in Tripoli and Antioch were redevelopments of existing structures, whereas, with very few exceptions, the castles of the Kingdom of Jerusalem were new foundations.

The County of Tripoli was founded by Raymond of St Gilles, Count of Toulouse. The city of Tripoli itself lay on the coast and was able to put up a vigorous resistance to his assaults, and Raymond decided to set up a base of operations on a ridge some 3 km from the old town and separated from it by a belt of gardens. Here he constructed a castle² along the ridge, sections of which are extant today, and the site is still called Qal'at (castle of) Sanjil (St Gilles, the name by which Raymond was known to the Arab chroniclers). The castle remained continuously in Frankish hands longer than any other in the Levant, surviving the disaster which enveloped so many after the battle of Hattin in 1187 and finally falling to the Muslims in 1289.

Tripoli is a classic example of the building of a castle for aggressive purposes, for putting both military and economic pressure on a city until it surrenders. William of Tyre, with his shrewd eye for practicalities, explains:

Anxious to make use of every means to drive the adversaries of the Christian name out of these lands, he had built a fortress on a hill facing the city of Tripoli, about two miles away. Since the place was founded by pilgrims, he gave it a name reminiscent of that circumstance, that it might be known forever as the Mount of the Pilgrims. The name survives even to the present day. [The Latin form was Mons Peregrinus, the French Mont Pelerin, not to be confused with Chastel Pelerin or Athlit to the south of Haifa.] The Mount of the Pilgrims is well fortified both by its natural site and by the skill of those who built it. From it as a base, almost daily Raymond caused new trouble to the people of Tripoli. As the result of this constant harrying, the natives of the entire district and even those who dwelt in the city itself were forced to pay him an annual tribute and in all matters obeyed him as if he owned the city without dispute.³

The castle seems to have been used as a seat of government and/or prison ever since its construction and so has been much rebuilt and repaired, but it is possible that some of the fabric dates back to the time of Raymond himself, who died of wounds in 1105, in the castle he had founded. The original building seems to have consisted of a rectangular donjon about 17 × 11 m, with a single chamber on each of the two floors. There was also a bailey, and the foundations of the curtain wall, with small buttresses but no flanking towers, have been unearthed a few metres inside the present eastern curtain which replaced it later in the century (plate 22). In the bailey there was a twelfth-century church which incorporated the remains of a Fatimid shrine in its chancel.

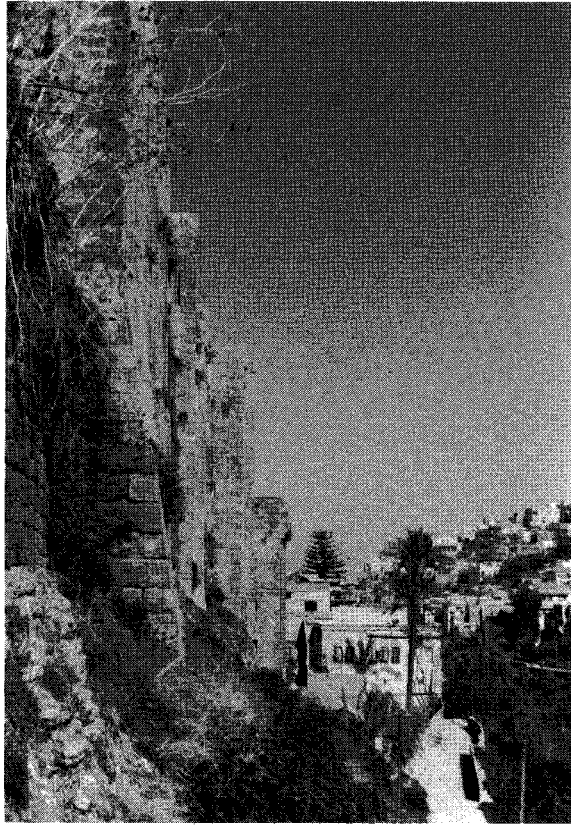


Plate 22 Tripoli, twelfth-century: east wall looking north. The wall along the crest of the ridge enclosed a court and the donjon. Note the rectangular towers, hardly projecting from the wall.

At the southern end of the County of Tripoli lay the small and very ancient port known in antiquity as Byblos and to the Crusaders as Giblest. The harbour and the little, stone-built town which surrounds it, with its Crusader church still in use, remains one of the most attractive on the Levantine coast.⁴ It also boasts the best surviving example of an urban castle of the twelfth century. It must not be forgotten that the greatest lords of the Crusader states lived in towns, Jerusalem, Tiberias, Caesarea, Tyre, Sidon, Beirut, Tripoli and Antioch, but that, almost without exception, the castles they resided in have disappeared. Giblest must have been one of the most modest of these seigneurial residences but it is the only one to survive more or less intact (plate 23).

Giblest surrendered to Raymond of St Gilles on 18 February 1102 and in 1109 his son Bertrand handed the city over to the cathedral of Genoa at the hands of (*in manibus*) William Embriaco. The Embriacos, a Genoese family,

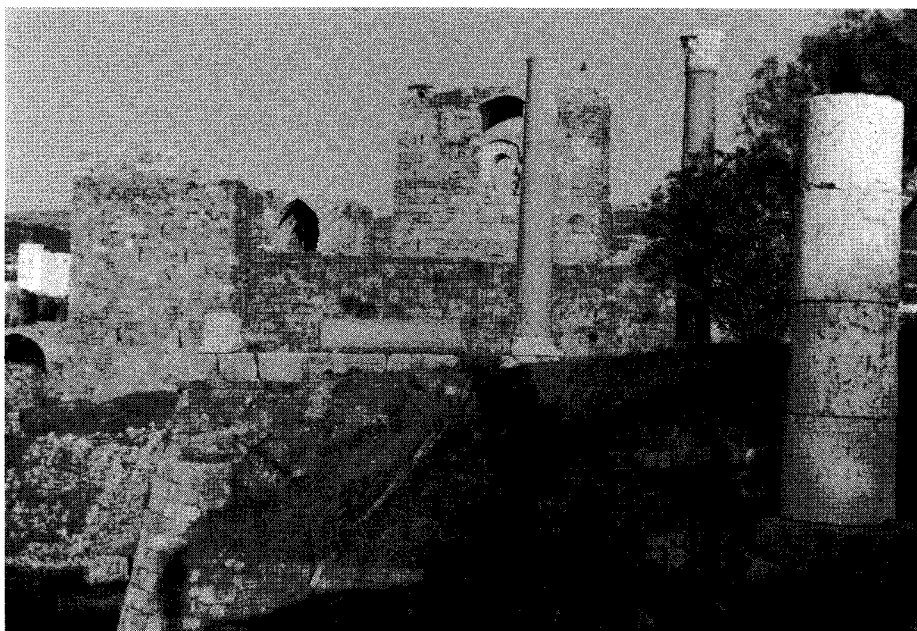


Plate 23 Giblet (Jubayl, Byblos), twelfth-century: general view from the west. A classic seigneurial castle of the period, with a square central donjon surrounded by an almost square bailey with towers at each corner. Much of the stone was taken from the ruins of ancient Byblos.

made themselves the effective lords of the city and joined the ranks of the aristocracy of Outremer. The lord was taken prisoner at the battle of Hattin in 1187 and the town surrendered to Saladin. In 1190, on the approach of the Third Crusade, he ordered its demolition but the donjon proved too strong and survived. The castle was returned to the Embriacos in 1197 and remained in their hands until, poverty stricken and desolate, it was taken by Bohemond VII of Tripoli in 1282 after he had walled up the last Embriaco lords and left them to die of starvation. It returned to Muslim hands shortly after Tripoli itself fell in 1289.

The castle was probably constructed soon after the beginning of the Frankish occupation (fig. 6). It was built at the most exposed angle of the city wall, on the site of the acropolis. Antique masonry was extensively re-used, not just shaped ashlar blocks but the columns of temples, laid transversely through the walls to give added strength and make undermining more difficult. The stonework is one of the earliest examples of the characteristic Crusader masonry with drafted margins and bossed centres and it may be that ancient masonry provided the inspiration for this style.

The centre piece of the castle is the great rectangular donjon (22 × 18 m),

CRUSADER CASTLES

0 10 20 30 40 50 60 m

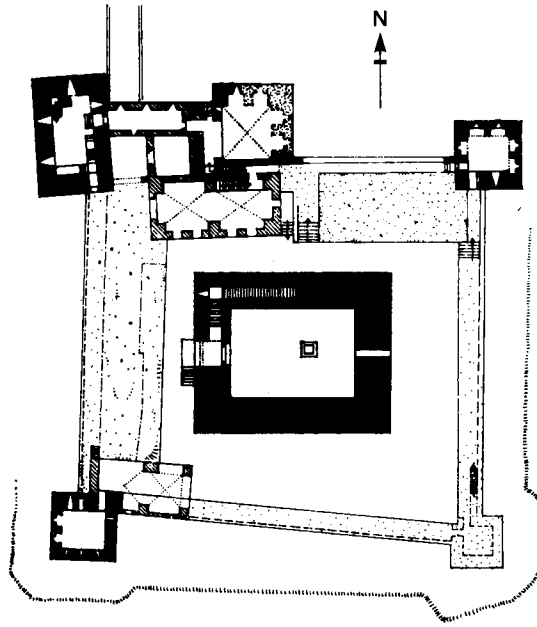


Fig. 6 Giblet: plan of ground floor. Crusader work is indicated in black. The simple rectangular donjon is surrounded by a curtain wall with corner towers. The entrance complex on the northwest incorporated a tower of the Fatimid period, itself built on classical foundations.

two stories in height, with a cistern under the floor of the lower chamber (Fig. 7).⁵ Access to the donjon was by ladder to a first-floor entrance door and upwards from there by straight staircases cut in the 4 m thickness of the wall. Inside, there is a single chamber on each level, each storey being roofed with a slightly pointed stone vault. When Rey visited, enough of the wall-head defences survived to show that they were on two levels and similar to the much better preserved ones at Saone. The donjon is surrounded by a narrow court. This is defended by five projecting towers. Three of these are typical square twelfth-century work with arrow slits to provide flanking fire along the curtain (plate 24). The entrance from the town is defended by two larger oblong towers well provided with arrow slits as is the curtain wall which connects them. It is likely that this work incorporates the remains of a Fatimid tower, itself built on a Roman colonnade, which accounts for the fact that it is out of alignment with the rest of the enclosure wall.

The other baronial castles of the county of Tripoli are less impressive. At Nephin,⁶ between Giblet and Tripoli, only a barren finger of land pointing

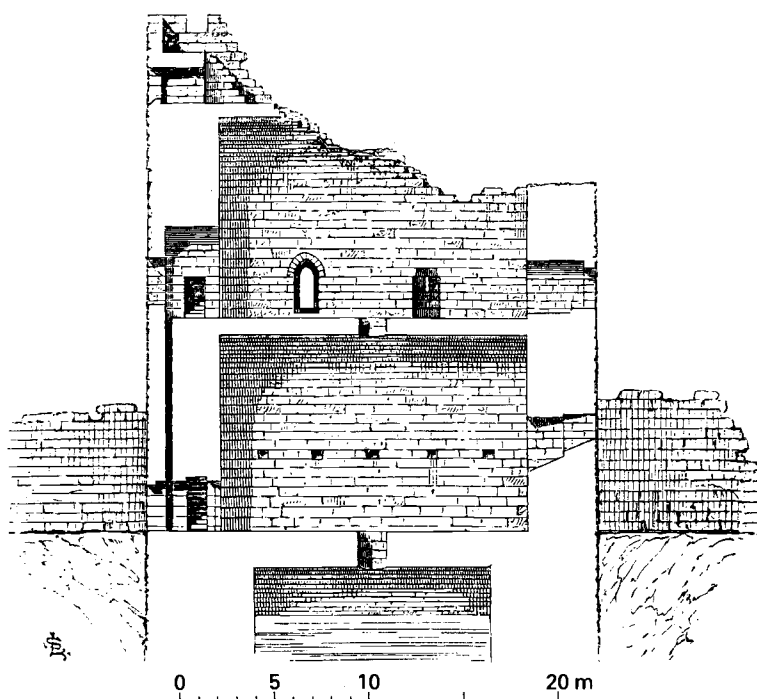


Fig. 7 Giblet: section of donjon. Note the single barrel-vaulted chamber at each level and the underfloor cistern. The section, drawn in 1859, shows the wall-head defences, which have now entirely disappeared: these were evidently similar to the surviving examples at Saone.

into the Mediterranean survives of the castle of the robber barons who held it in the twelfth and thirteenth centuries: Reynouard of Nephin was infamous for pillaging the refugees fleeing from Jerusalem after Saladin's conquest in 1187. Of the twelve strong towers seen by Burchard of Mount Sion when he passed in 1282 no trace now remains, and no one has found the grisly cavern where the last Embriaco lords of Giblet were walled up by their fellow Christians and left to die.

A more cheerful site is Gibelacar (Akkar),⁷ set among the ravines at the northern end of the Lebanese mountains, the other side of the Homs–Tripoli gap from Crac des Chevaliers. In the first half of the twelfth century it was the seat of a baronial family, the Puylaurens. Around 1167 it was taken by Nur al-Din and held for a couple of years before being retaken by the Franks. It eventually passed by inheritance, after a short spell in Hospitaller hands, to the lord of Nephin, who was forced to surrender it to his suzerain Bohemond IV of Antioch-Tripoli. It seems to have remained in the hands of the ruling dynasty until 1271. After his successful attack on the more formidable target



Plate 24 Giblet: north wall of the bailey, looking east. Note the round ends of antique columns laid horizontally through the walls to provide stability against earthquakes and mining.

of Crac des Chevaliers, only 27 km away to the north, Baybars launched an attack on Gibelacar. He had great difficulty hauling siege engines up the wooded hills but the bombardment finally began on 2 May. Resistance was fierce and one of the Muslim Amirs was killed while praying outside his tent, but the outcome was inevitable, and on 11 May the garrison was allowed to surrender and retire to Tripoli.

The castle itself runs the length of a 200 m ridge. The strongest point of the defences is a tower 13 m square, smaller than the great donjons of Giblet or Saone but still formidable, at the south end of the ridge, supported by a glacis above the man-made cistern which separates the ridge from the rest of the mountain. The rest of the fortifications hug the edge of the ridge, but in the absence of a plan or full archaeological investigation it is difficult to date the work precisely.

There is another twelfth-century ridge-based castle at Arima (fig. 8).⁸ It lies

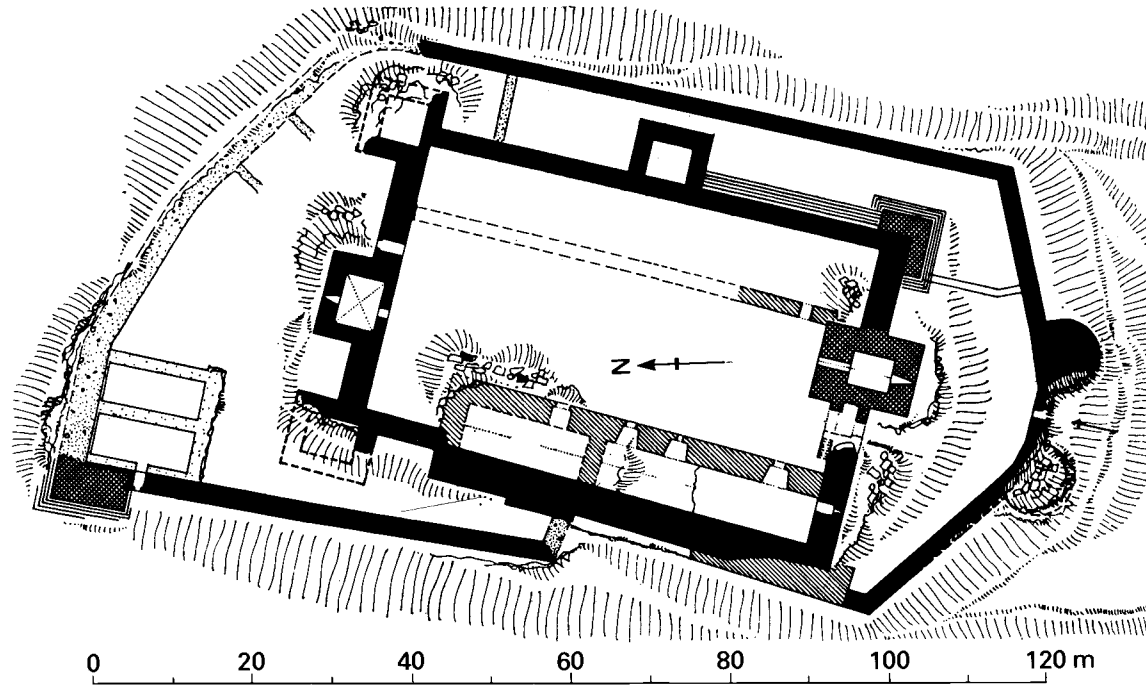


Fig. 8 Arima: plan of upper bailey. The original, rectangular enclosure castle is represented in black. The round towers and the small donjon in the south wall may have been later. The undercroft on the inside of the west wall probably supported a hall and may date from the period of Templar occupation like the large tower on the northwest corner of the outer wall.



Plate 25 Arima, twelfth-century: general view from east. The castle consisted of three rectangular baileys, end to end along the ridge. The inner bailey, at the right (north) end stretched as far as the rectangular tower. The southern bailey, now much overgrown, finished at the left where the white dome of the modern Muslim shrine can be seen.

on a steep, isolated ridge, commanding wide views on the plains of Tripoli to the south and east and the sea beyond (plate 25). The site is now much overgrown with rough scrub and some of the walls, especially in the first bailey, are difficult to distinguish. The castle runs the whole length of the ridge and consists of three rectangular baileys, end to end, separated by ditches. Of these the third, most easterly one is the strongest and best defended. There are at least two phases of building. The first uses roughly coursed black basalt stones which were employed to construct most of the curtain walls and some ruinous towers, including two small round ones outside the gate of the eastern bailey. Along the east and part of the west side of the third bailey there were outer walls like giant hillside terraces, in the same fabric. To this fairly crude enclosure were later added a number of strongly built, square towers in a finely drafted limestone (plate 26). These included a new entrance tower and gate to the second bailey and a small donjon and two corner towers in the third. The third bailey also contains a vaulted undercroft, which presumably carried a hall on top, in the same masonry. The defences are well constructed though modest in scale beside twelfth-century work at Saone and Margat, deriving much of their effectiveness from the steeply sloping ground around the perimeter.

The castle belonged to the Counts of Tripoli and was clearly a fortress of some importance by 1148 when it was used by Bertrand, an illegitimate member of a rival branch of the house of St Gilles who had come out with the Second Crusade and intended to oust Raymond II from his position as Count

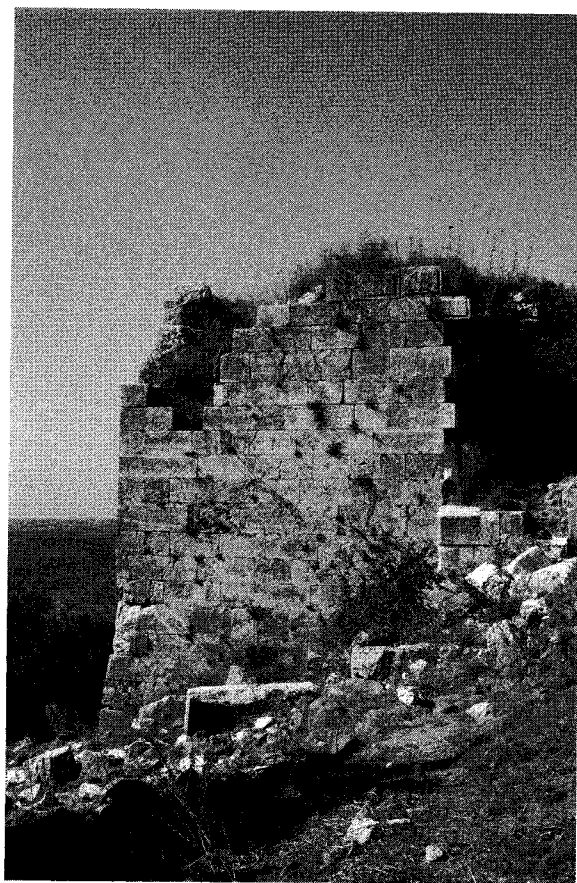


Plate 26 Arima, southwest tower of inner bailey, looking west. This finely built tower, which may date from the Templar occupation of the late twelfth and thirteenth centuries, contrasts with the rough basalt stonework of the original enclosure.

of Tripoli. Unhappily for him, Raymond was much more experienced in the ways of the east and made contact with the Muslim leader Nur al-Din who took the fortress, leading Bertrand into captivity, where he remained for the next eleven years while his sister was taken into Nur al-Din's harem (Ibn al-Athir unkindly remarks of him that he was like the ostrich of which it is said 'It went into the country to look for horns and came back without its ears').

The Muslims could not hold the castle itself, which was dismantled. It was presumably rebuilt by 1167 when it was again taken by Nur al-Din and dismantled. Further damage was done by an earthquake in 1170 but it was sacked again in 1171. It does not seem to have been taken by Saladin in 1188

CRUSADER CASTLES

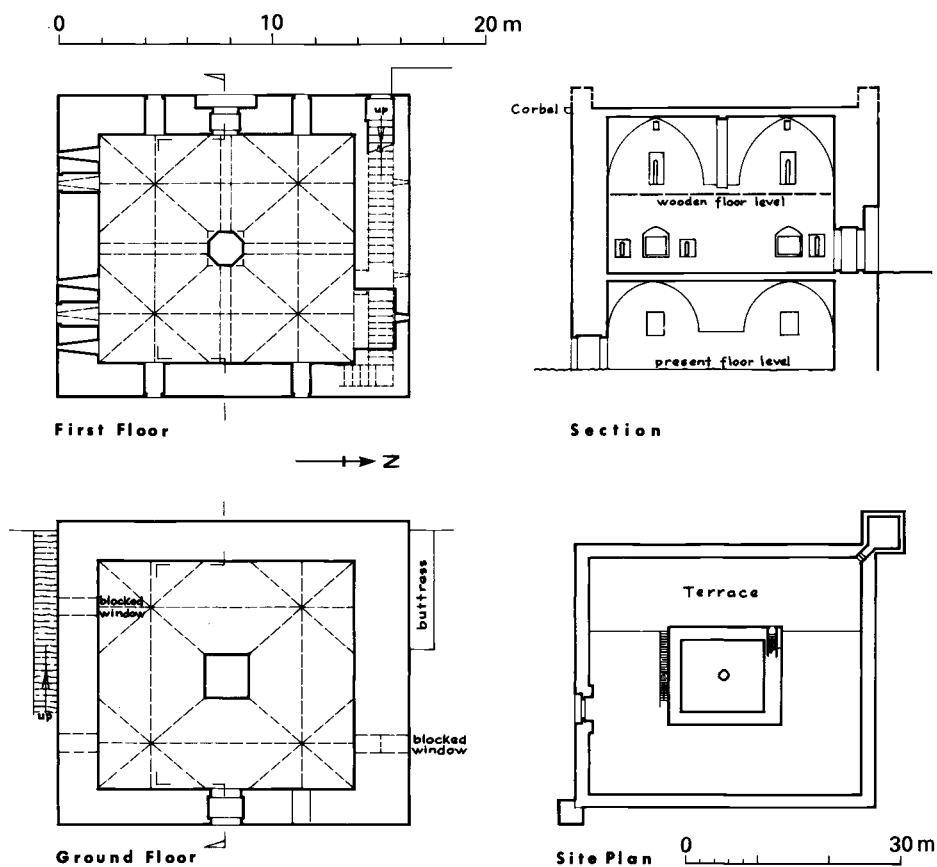


Fig. 9 Chastel Rouge (Qal'at Yahmur): plan and section. The almost square donjon is divided into two storeys, each roofed with groin vaults supported on a single, central pillar. The upper storey was divided by a wooden floor, which has now disappeared. The straight staircase between the first and second floors was contained in the thickness of the wall but there seems to have been no internal access between the ground and first floors. Compare with the donjons of figs. 2 (Red Tower), 7 (Giblet) and 14 (Saone).

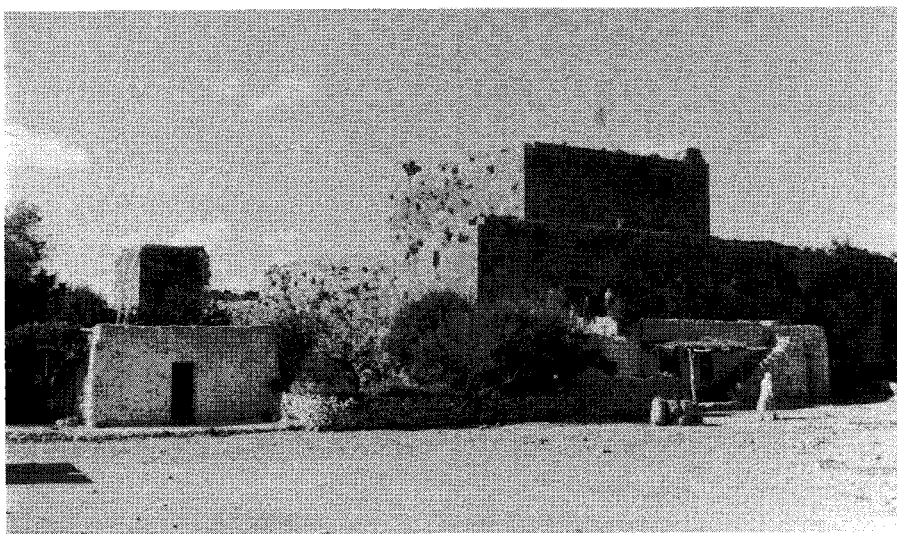


Plate 27 Chastel Rouge (Qal'at Yahmur), twelfth-century: general view from southeast. The outer curtain can be seen enclosing a narrow bailey with the square donjon rising behind. The entrance arch can be seen behind the white house centre right. (Photo 1965; the castle is now surrounded by new building.)

when he contemplated attacking Crac des Chevaliers. It probably passed to the Templars in the thirteenth century and it is mentioned in a treaty between the Templars and the Muslims in 1285. It is likely that the first black basalt work dates from the early twelfth century when the castle belonged to the Counts of Tripoli. The second phase may represent strengthening by the Templars at the end of the century and it is most likely that they also built the undercroft and hall typical of the work of the Military Orders.

The County of Tripoli was small, rich and extremely exposed to attack from the east. It was originally settled by Crusader knights and their families, many of them Provençal vassals of Raymond of St Gilles. In the plains around Tripoli itself and in the low hills, which the Crusaders called the *Terre de Calife*, immediately to the north of the Homs–Tripoli gap, we find a pattern of settlement which seems to be similar to that in the plain of Sharon described by Pringle,⁹ a number of simple castles built by knightly families in the first half of the twelfth century. In this area, however, the documentary record is much thinner and it is more difficult to identify them. These castles consisted of square donjons, sometimes surrounded by courts or ancillary buildings.

Chastel Rouge (Qal'at Yahmur)¹⁰ is the best preserved of these (fig. 9). It stands now in the centre of a village in the plains to the northeast of Tripoli. It

CRUSADER CASTLES



Plate 28 Chastel Rouge: interior vault of keep, showing centre pier (bottom) with groin vaults and transverse rib. Note the high quality of the building work in this fairly modest castle.

has no natural defences. A substantial keep (16 × 14 m), low and massive in the Crusader manner, is surrounded by a square enclosure (plate 27). There are low stone buildings along three sides of this small bailey and access to the donjon is gained by an outside stair to the roof of one of these buildings and thence to the first-floor entrance. The interior at this level is impressively spacious, with groin vaults in each of the four quarters supported on a central octagonal column (plate 28). The space was not always so grand, however, and corbels and fenestration show that there was a wooden floor just below the springing of the vaults. Spiral staircases were virtually unknown in Crusader military architecture and here, as elsewhere, the floors were linked by straight external and internal staircases. The masonry is in smooth finely jointed ashlar and the vaults are especially impressive: the whole structure gives an impression of prosperity and quiet determination.

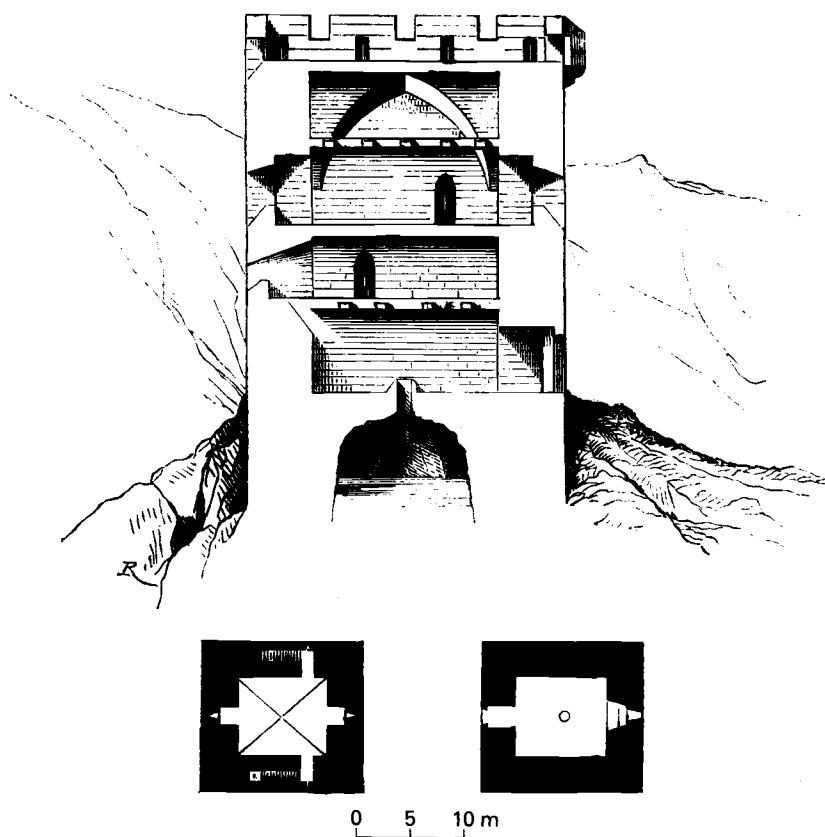


Fig. 10 Tukhlah: section. This small donjon has now been demolished down to the foundations but it seems to have been one of a number of small tower-houses in the County of Tripoli of which Burj al-Arab is the best surviving example. Note the barrel vault in the lower half and the groin vault above, each vaulted storey being divided by a wooden floor. There was a box-machicolation over the door and a cistern beneath the ground floor.

Chastel Rouge seems to have been built early in the twelfth century and belonged to the Montolieu family until 1177–8 when Raymond III handed it over to the Hospitallers and the family received 400 bezants as compensation. It has obvious similarities with the donjons built on the plains around Caesarea in the Kingdom of Jerusalem and in both cases they reflect the pattern of settlement by small, lay fief holders in the first half-century of the Latin occupation.

There were a number of smaller keeps in the hills of the Terre de Calife which probably also belonged to Provençal knights, though their Frankish names and identities are lost. Rey, followed by Deschamps,¹¹ has described them as isolated watchtowers, to keep an eye on the Assassins to the north

CRUSADER CASTLES

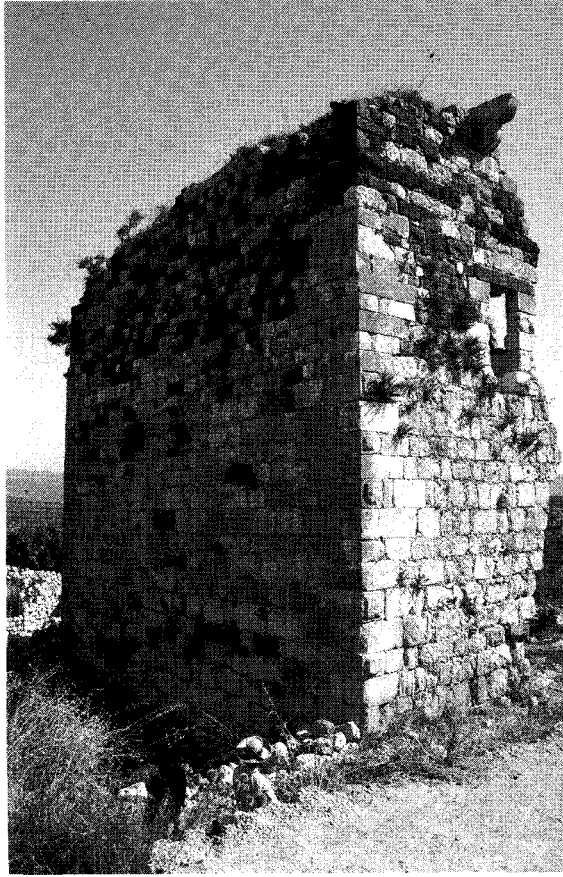


Plate 29 Burj al-Arab, twelfth-century: general view from southwest. The tower was surrounded by a bailey (from whose wall the photograph is taken). Note one surviving corbel for a machicolation above the window. The black basalt masonry may represent repairs after earthquake damage.

and other marauders, but this seems unlikely. The landscape in this area is typically Mediterranean: olive trees cover the limestone hills and vines shade the courtyards of the village houses. This prosperous and benign landscape would certainly have encouraged settlers and these towers are the simple castles in which the newly arrived lords established themselves. Rey published a drawing of the tower at Tukhlah (which he and Deschamps call Toklé fig. 10). It is a trim, square tower, 14×13.5 m (only slightly smaller than Chastel Rouge). There was a cistern under the floor of the cellar and access to the other floors was gained by a ladder to a first-floor door. There were two vaulted stories divided by wooden floors and the roof terrace was surrounded by battlements. Tukhlah stood in the middle of a village on a small hill but



Plate 30 Burj al-Arab from east. The two-storey tower had a barrel vault on the ground floor and a groin vault above. Note the massive thickness of the vaults and the typical Crusader walls with cut stone on internal and external faces and a rubble filling. Compare with the surviving wall at Red Tower in the Kingdom of Jerusalem (plate 7).

would have been very badly placed as a watchtower since it is overlooked by a much higher hill about half a kilometre to the east. Unfortunately, on a recent visit I found the tower had been demolished down to a few feet in height, but enough remained to show that it had been a substantial structure and was surrounded by outbuildings, including a vaulted chamber containing a large and ancient stone olive press.

More remains of the small castle at Burj al-Arab, about 16 km away to the south of Safita, where one side of the tower still stands to its full height (plate 29). The lower sections are constructed in a squared limestone but the upper part seems to have been rebuilt in a less well-cut basalt. In the interior there was a ground floor covered by a thick and heavy barrel vault (plate 30). Above this there was a chamber with a groin vault and in this again there is evidence that the original fine limestone structure was either completed or

rebuilt in much poorer quality basalt. There is a single, large south-facing window and over it, at the wall head, a projecting corbel which must have carried a simple machicolation, and the interior vaulting can be easily seen. It is most probable that the original limestone keep, which is certainly Crusader, was rebuilt possibly after earthquake damage, along the original plan but with a cruder technique. The tower is surrounded by a square bailey, like the one at Chastel Rouge but smaller, with the remains of single-storey structures around it. Similar towers have been noted in the foothills of northern Lebanon and no doubt there were more which have disappeared without trace.

Quite different in design is the castle of Coliath in the fertile plain north of Tripoli town, given by Count Pons of Tripoli to the Hospitallers in 1127.¹² This is a typical enclosure-plan castle of the sort favoured by the Military Orders: indeed until the excavations at Belvoir, it was the classic example (fig. 11). It is much smaller than Belvoir (63 × 56 m). There is no donjon but it is defended by towers at each corner, one substantially taller than the others, and bastions in the middle of each side except the main entrance which lies between the two small turrets. We know little of its history, save that it was sacked by Al-Malik al-Adil in 1207–8 when he was campaigning against Tripoli and was still in ruins when Wilbrand of Oldenburg passed in 1212. It was finally taken by Baybars in 1266. It looks as if this modest fortification was developed when the Hospitallers first acquired it but was subsequently neglected in favour of Crac des Chevaliers. As such it is a good example of the earliest phase of the castle building of the Military Orders.

The Principality of Antioch also boasted important baronial castles of the twelfth century but we know even less of the residence of the princes of Antioch than of the Counts of Tripoli and there are no surviving buildings which can be attributed to the ruling family who seem not to have possessed any fortifications outside their capital. The citadel at Antioch itself always seems to have been a surprisingly modest affair.¹³ Built on the precipitous crest of Mount Silpius, overlooking the city far below, it stood at the apex of the town walls. It had originally been constructed by the Byzantines after their conquest in 969, but some of the walls, which only survive to a few feet above ground level, can be attributed to the Crusaders.

The most powerful baronial family in the principality were the Mazoirs.¹⁴ Renaud I Mazoir was constable of Antioch and effectively governed the principality from 1131 to 1134 after the premature death of Bohemond II. His son Renaud II (d. 1185–6) married Agnes, daughter of Count Pons of Tripoli whose mother Cecily was the sister of Louis VI of France: the Mazoirs were connected with the highest ranks of the Frankish aristocracy. From 1117–18 onwards they began to build up an extensive domain in the mountains between the coast and the Orontes in the south of the principality, including some castles like Qadmus and Bikisrail later occupied by the Ismailis. By

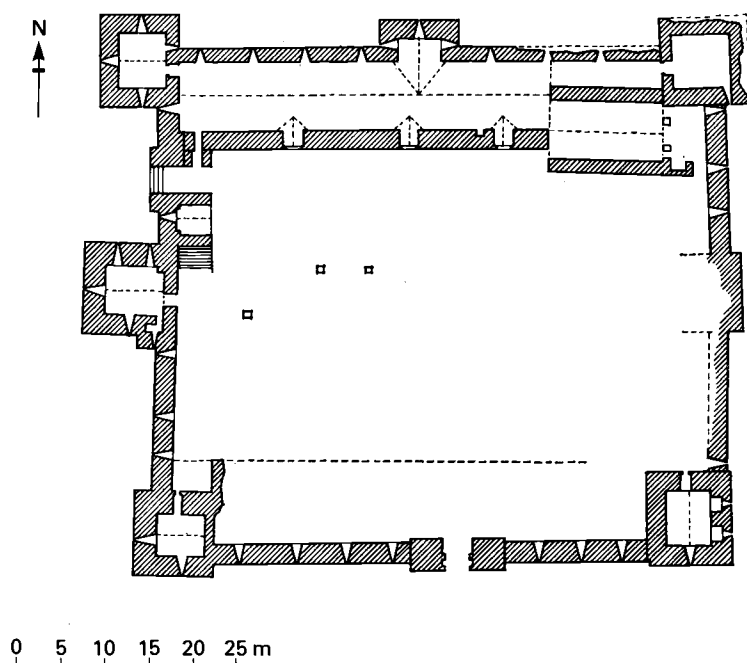


Fig. 11 Coliath: plan. A small enclosure castle with square towers at each corner and in the middle of two sides. A vaulted undercroft survives along the north wall.

1140 they had made their centre at the castle of Margat, on the summit of a steep hill commanding wide views over the coast and the Mediterranean sea. Of their work only a few rectangular towers and a length of curtain wall seem to have survived the great Hospitaller rebuilding of the early thirteenth century but they probably fortified the whole of the triangular plateau on which the castle and its dependent town stood. Despite their extensive landed properties, the Mazoirs came under increasing financial pressure. On 1 February 1186, after his father's death, Bertrand Mazoir sold his vast possessions to the Knights Hospitaller: like some great twentieth-century country house sale, everything was disposed of except for a small castle on the coast, the Mazoirs to receive an annual pension of 2,200 bezants to be paid in Tripoli where they were presumably now living. The whole affair shows clearly how even the greatest baronial family in one of the securest areas was unable to sustain the burdens of managing its great estates and was obliged to sell out to institutional buyers.

The most remote of the surviving castles of the principality is Bourzey, which Cahen has plausibly identified with the Frankish Rochefort.¹⁵ The normally sober Deschamps describes it as 'built very high on a rocky spur, it

CRUSADER CASTLES



Plate 31 Bourzey (probably Rochefort), twelfth-century: general view from southwest. The bold square towers on the right enclose the lower bailey. The large tower, centre left, stands at the end of the dividing wall between lower and upper baileys. At the extreme left is the donjon/entrance tower. It was up this rugged slope, the easiest access to the castle, that Saladin launched his attack in August 1188.



Plate 32 Bourzey: southern wall looking east. In the centre middle distance is the east tower, overlooking the Orontes valley. The valley, now cultivated, was mostly swampy in the Middle Ages.

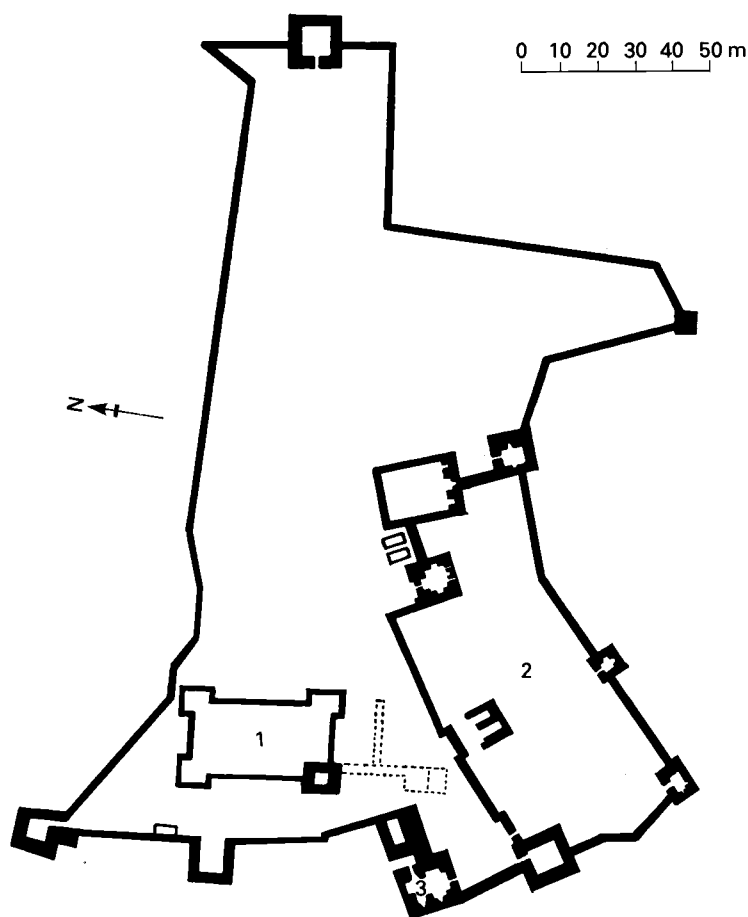


Fig. 12 Bourzey: plan. The original rectangular Byzantine citadel was surrounded by a Crusader curtain wall, following the contours of the top of the cliff and fortified by square towers. Unfortunately the plan does not show the contours and the site is in need of a full survey. 1. Byzantine citadel; 2. lower bailey; 3. entrance donjon.

looks like the prow of a fantastic ship poised to attack the clouds'. It stands on an isolated crag on the inland edge of the mountains where they border on the rift valley of the Orontes (plate 31). To the east of the castle lies the flat river plain, now intensively cultivated, but until recently an unhealthy marsh (plate 32). To the west the steep, forested slopes of the mountains tower above it, making direct communication with the west almost impossible. The only nearby Frankish outpost was the now vanished castle above Jisr al-Shughur to the north and it must have seemed a very cut-off and lonely outpost.

To north and south, the hill on which the castle stands is separated from



Plate 33 Bourzey: north side of tower 3 looking west. Note the arrow slit and the roughly squared and coursed masonry.

the mountains by rocky gorges, while to the west there is a small enclosed plain, now occupied only by a deserted village of unknown date and the traces of fields and orchards, a totally silent, secluded, numinous spot on a hot Syrian afternoon. The isolated outcrop had been taken by the Byzantines in 975 when the Emperor John Tsimisces referred to it as the 'celebrated Bourzo'. Ibn Shaddad, describing Saladin's assault, calls it 'Burzayh, an extremely strong and almost inaccessible castle. It was constructed on the summit of a mountain and in all the lands occupied by the Franks one said proverbially "as strong as Burzayh".'

On the flattened summit was the Byzantine redoubt, not dissimilar from the one at Saone but now almost completely ruined (fig. 12). Around this the Franks constructed an enceinte following the edge of the summit plateau, with a small lower bailey on the south. The walls are strengthened with rectangular

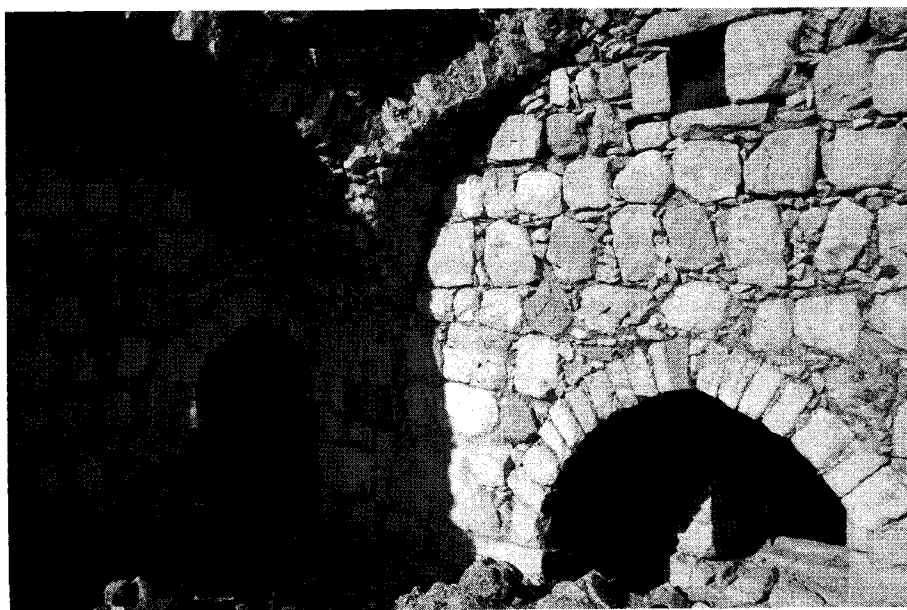


Plate 34 Bourzey: interior of upper floor of donjon/entrance tower showing crudely built arches and springings for groin vault.

towers in a typically twelfth-century style, especially on the western side which offered the only possible access. The building is crude and vigorous (plate 33), a sort of poor man's Saone, with roughly squared limestone blocks and little attempt at architectural finesse apart from the simple relieving arches over the massive stone lintels of the doors. The towers were roofed with simple groin vaults (plate 34). The main and only way in lay in the re-entrant angle behind the largest of the towers. We do not know who built the castle but the Arab sources provide some details about its conquest by Saladin in 1188. Deschamps has used these sources to produce an account which is worth quoting in full,

Saladin, who had sent his son on the 17 August to take Sarmaniya, 7 km to the north of Bourzey, arrived there on 20 August. On the 21st he went round it to find the best place to attack. He discovered that assault was impossible on the north and south and difficult on the east. On the west it was possible to shoot arrows and set the siege engines to work. This was done but it was realised that the missiles hardly reached their target and were ineffective; 'I saw from the top of the mountain', wrote Ibn al-Athir, 'a woman who was hurling missiles from the citadel with the aid of a *manjaniq* [trebuchet]. It was she who made all our efforts useless'. The bombardment lasted all the Sunday and the following night. On Monday it continued without achieving any results. When Saladin saw that his machines were useless, he ordered an assault. He divided his army into three

sections which were to advance in successive waves. He took command of one of these with his son Taqi'al-Din. However the Muslims only advanced with great difficulty as the ascent was full of obstacles and the Franks attacked them with boulders which they rolled down the slopes. The garrison were few in number and, despite a heroic resistance, they were obliged to surrender. The lord of the place was there with his wife who was the sister of Sybille, third wife of the Prince of Antioch, Bohemond III. Sybille used to betray the Franks to Saladin to whom she passed on their secrets. The Sultan sent this sister of hers, her husband and all her family, seventeen people in all, to Antioch.

In western Europe, bishops often had castles at some distance from their cathedrals (the bishop of Winchester's castle at Farnham and the bishop of Salisbury's at Sherborne are typical twelfth-century English examples). The impoverished bishops of the Crusader states were seldom able to enjoy such an expansive life-style but an exception were the patriarchs of Antioch. The patriarchs were very important figures in the life of the principality, especially Aimery of Limoges (1135-93); twice he was responsible for saving the city from the Muslims, once in 1149 after the death of Raymond of Poitiers and again in 1164 when Bohemond III was captured after the defeat at Harim. After 1155 he acquired the castle at Cursat¹⁶ about 10 km to the south of the city as a refuge and a place to store his treasures. He was soon to need it. In 1165 Bohemond, seeking Byzantine support for his endangered principality, allowed a Greek patriarch into the city and Aimery retreated to his fortress. The Greek was killed in an earthquake in 1170 and Bohemond came to Cursat to lead Aimery back in triumph to the city. Conflict flared up again when the redoubtable patriarch excommunicated the prince for his sexual immorality and it was possession of his castle which enabled the patriarch to maintain his stand. Cursat remained the residence of the patriarchs throughout the Frankish period and it only fell to the Muslims in 1275, seven years after Antioch itself.

Like so many castles in the area, Cursat was built on a natural plateau surrounded by steep valleys, except in the southwest where it joined the neighbouring hill. In true Crusader fashion this flank was protected by a deep artificial ditch and it was here that the defence was concentrated. The most striking feature of the defences are the two great round towers built in 1256 when the Pope ordered that all the ecclesiastical tithes of the patriarchate of Antioch for three years should be devoted to the strengthening of the fortifications. Twelfth-century work can still be found in the rest of the fortress, notably in the curtain wall and the rectangular tower to the north with its bossed and margined stone.

The greatest of all the twelfth-century castles in the principality, and one of the most impressive in the entire corpus of Crusader building in this period, is the castle at Saone (the traditional Arabic name is Sahyun but since this is the Arabic equivalent of Zion, it has now been given the more politically correct

title of Qal'at Salah al-Din/Saladin's Castle).¹⁷ The site was not a new one and seems to have been fortified from Hamdanid times (mid-tenth century), if not before. In 975 it was taken by the Byzantine Emperor John Tsimisces at the same time as Bourzey, over the mountains to the east. The Byzantines seem to have held it until it was taken by the Franks, perhaps in 1108 when they took nearby Lattakia from the Greeks. The Frankish lords of Saone were among the greatest barons of the principality of Antioch, second only to the Mazoirs of Margat holding Balatanos to the south and, until its final fall to the Muslims in 1134, Sardana beyond the Orontes. The first of the lords appears in 1108 as Robert son of Fulk. Also known as Robert the Leprous he was an important military commander and maintained good personal relations with the Atabeg Tughtagin of Damascus. This did not save him, however, when in 1119 he was captured trying to relieve his town of Sardana. When he was brought before Tughtagin, he refused to renounce his faith and was executed, his erstwhile friend using his skull, inlaid with jewels, as a drinking cup. His successors are much less well known but the castle remained in the family until it was captured by Saladin from Matthew de Saone in 1188.

It was probably Robert or his son William (d. 1132) who built the castle at Saone around the Byzantine redoubt. It lies on a spur site no less than 700 m long. Unlike other great castles such as Crac des Chevaliers and Margat, Saone does not command the surrounding country; indeed it is hidden away and the traveller is almost surprised in turning the last corner to see it stretched out along its ridge between two steep gorges, both now heavily wooded with aromatic pines (plate 35). The Byzantines had fortified the spur by building walls across the ridge to defend it from the east where it joined the surrounding plateau and by building a castle, an irregular court enclosed by strong walls and flanking towers, all distinguished by their masonry work, small irregular blocks 'drowned', as Deschamps says, in plentiful mortar. On the western end of the spur lay a castletown. This village had at least two small churches and was surrounded by a modest wall.

The Crusader lords set about strengthening the already considerable defences (fig. 13). Where the spur connects with the mass of the mountain the Crusaders dug a great ditch. Robin Fedden describes it thus:

a vast rock hewn channel, like a deep wound, isolates the castle from the body of the mountain ridge. This immense channel, nearly 450 feet long and over 60 wide, is one of the most impressive memorials the Latins left in the Holy Land. Its walls, the haunt of black and scarlet rock-creeper, rise sheer for 90 feet and the battlements tower above. No drawbridge could span such a channel in a single sweep, and the Crusaders therefore left a needle of solid stone to carry their bridge across. It stands like an obelisk and recalls those works of the Nile with which this labour of carving some hundred and seventy thousand tons of solid rock alone seems comparable.

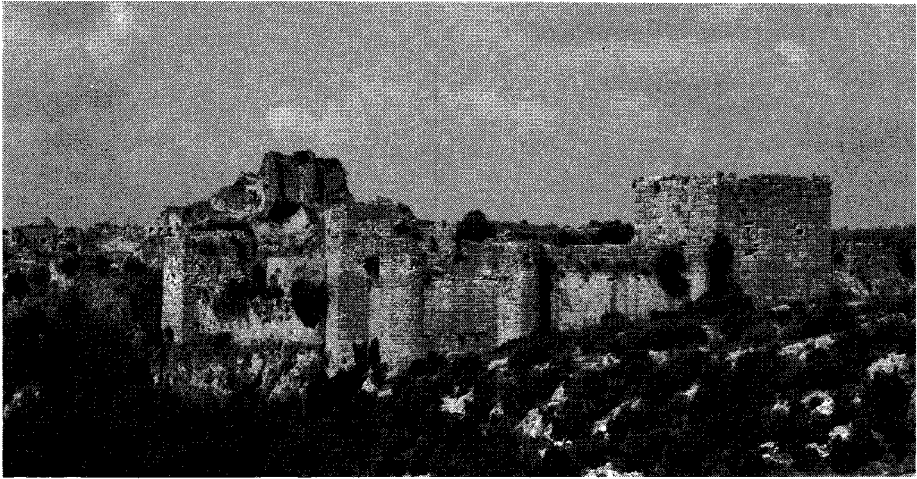


Plate 35 Saone (Sahyun Qal'at Salah al-Din), twelfth-century and earlier: general view from east. The great rock-cut ditch lies between the hill in the foreground and the curtain wall. The donjon can be seen centre right, with the two round towers to the left. The Byzantine citadel is at the high point of the ridge.

The Crusaders left the Byzantine redoubt but strengthened and extended the walls along the edges of the spur, building great square towers to guard the flanks and the gateways. They also strengthened the walls of the lower, castletown end of the spur with rectangular towers at the entrances. This lower enclosure is separated from the castle proper by a steep slope leading up to a wall, strengthened by square towers and a rock-cut ditch. This ditch, which was never completed, was on a much smaller scale than the mighty trench at the east end and proved to be the Achilles heel of the whole defensive system when it was put to the test in 1188.

The main defensive work was reserved for the eastern end overlooking the great fosse, which presumably also served as a quarry. Here they built the finest of the donjons constructed in the twelfth century (24.5 m square), perched on the very edge of the sheer drop down into the ditch so that the masonry of the tower seems like a direct continuation upwards of the natural rock (fig. 14). The donjon is flanked by a curtain wall, clinging to the edge with, at its southern end, two round towers which grow from semi-circular projections in the walls of the cliff (plate 36). These towers are hollow and provided with arrow slits from which to cover the ditch and the plateau on the other side. To the north of the donjon there is a simple postern gate, flanked by a pair of rounded towers which are little more than bumps in the wall. This led onto a vertiginous wooden bridge across the ditch. On all this front the Crusader work is distinguished by the use of large rectangular

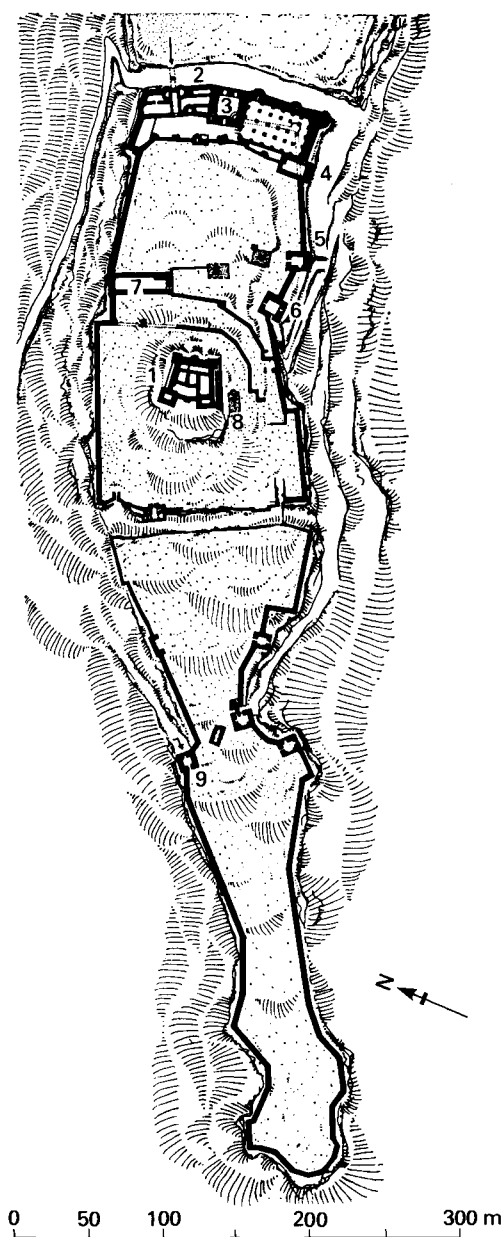


Fig. 13 Saone: plan. The narrow castle runs along the summit of the ridge.

Three main sections can be seen, the Byzantine keep, the main Crusader fortifications to the east with the great ditch and the lower castletown to the west, separated from the rest of the fortress by a shallower ditch. 1. Byzantine citadel; 2. great trench; 3. donjon; 4, 5, 6 large Crusader towers; 7. Cistern; 8. Crusader chapel; 9 gate-tower of lower enclosure.

CRUSADER CASTLES

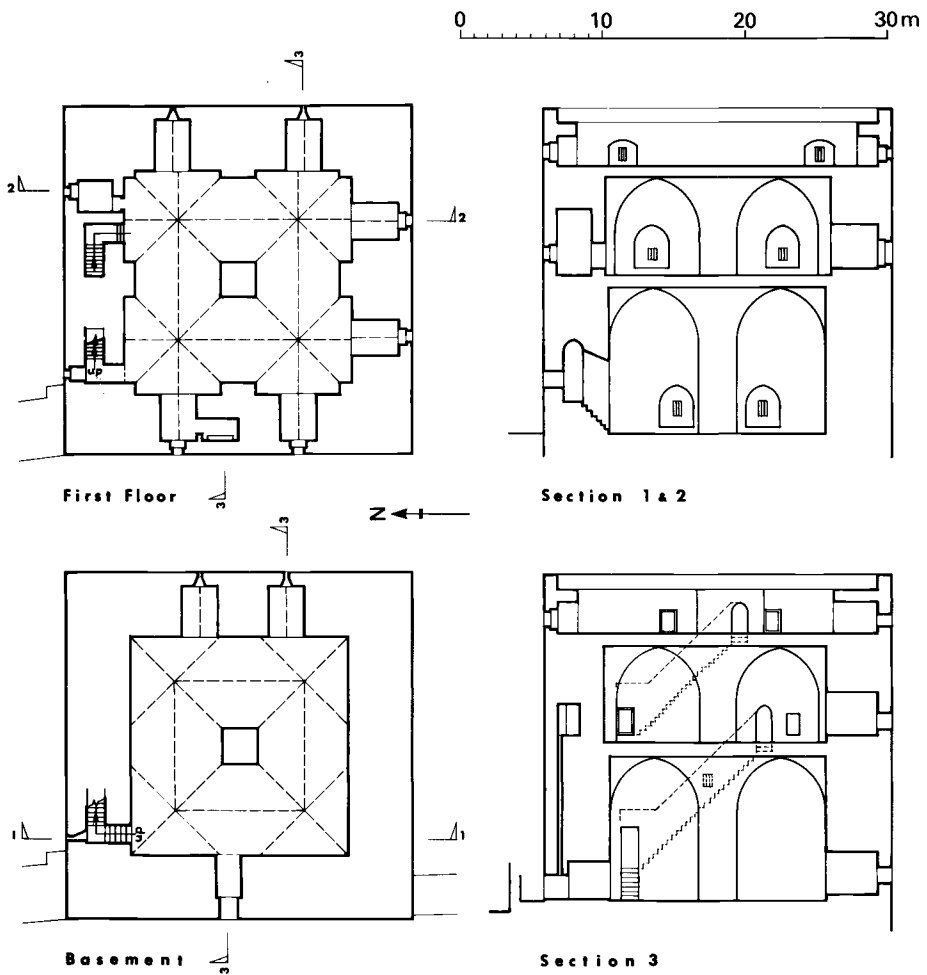


Fig. 14 Saone, section and plan of donjon.

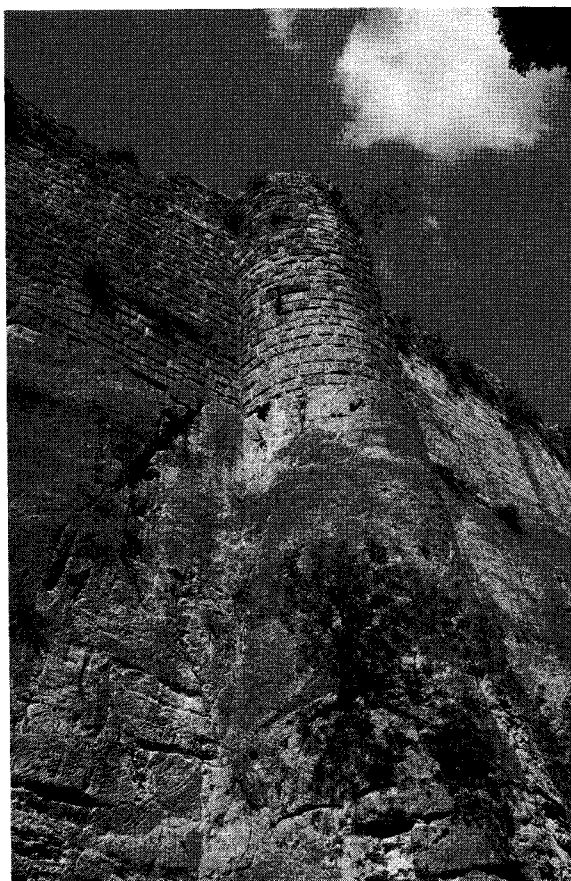


Plate 36 Saone: round tower on eastern curtain. The tower is an extension of the artificial cliff at the edge of the ditch. As the arrow slit shows, the tower has an interior chamber. It is one of very few round towers built by the Crusaders in the twelfth century.

blocks, laid in regular courses with bossed centres and drafted margins (plate 37). At various places, notably in the wall to the north of the donjon, we can see where repairs were made by the Muslim occupants after the bombardment of 1188.

The donjon at Saone has two vaulted stories with one main chamber on each level and a central pillar to sustain the stone vaults (plates 38 and 39). The lower storey is high and dark and the top of the central pillar, made of large, roughly hewn blocks, is almost lost in the gloom, like a column in some Piranesi etching. There are straight stairs in the thickness of the wall leading to the lighter upper chamber and thence to a roof terrace which still survives almost intact with battlements on the wall head. The donjon was built as a

CRUSADER CASTLES

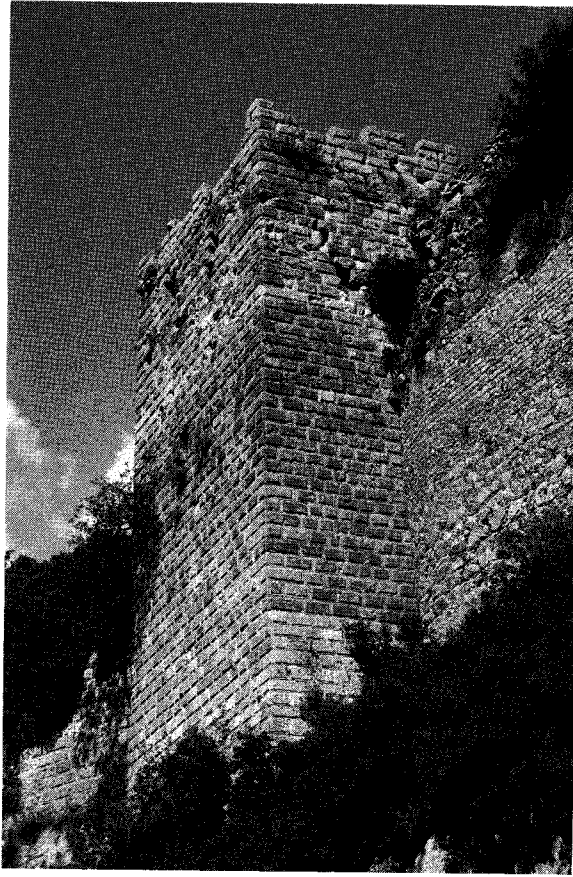


Plate 37 Saone: tower on south wall from southeast. Note the superb quality of the stonework with fine rectangular blocks with lowered margins, and the crenellations, one of the few surviving examples of twelfth-century Crusader wall-head defences.

self-contained fortress and there is no link between it and the top of the curtain wall. We know it was used as a place of last resort: in the siege of 1188 when the lower bailey and then the inner bailey had fallen the surviving defenders, almost all wounded, retreated to the donjon and bargained for terms. These were granted and, on paying 10 dinars per man, 6 per woman and 2 per child, they were allowed to leave for Antioch.

Along the north side of the main fortress, the cliffs are so precipitous that no major fortifications were necessary. The southern flank, however, slopes more gently and was more vulnerable. The Crusaders strengthened the defences here by the addition of three large square towers (plate 40), projecting slightly from the curtain, built with the same fine masonry work as the

TWELFTH-CENTURY CASTLES IN THE NORTHERN STATES

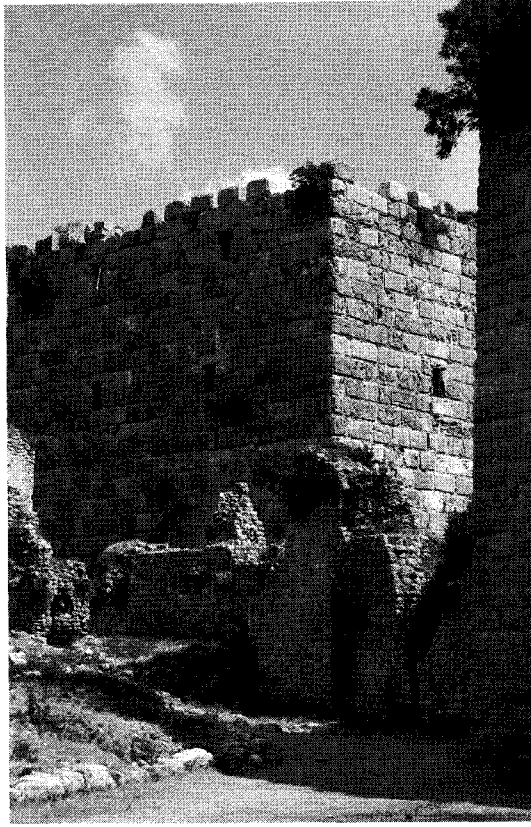


Plate 38 Saone: donjon from southwest, with tower 4 on right hand. Note the windows on the walls of the donjon overlooking the court and the contrast between the massive Crusader masonry and the much smaller blocks of the superseded Byzantine curtain wall in the foreground.

east front. At their bases the slope was carefully cut away to make a sheer cliff. The towers do not communicate with the curtain wall walk and seem designed as individual units. In one of these towers (4) there was a small postern gate from which one could descend by ladder or rope, while tower 6 contained the main entrance to the fortress, a small door in the flank of the tower leading into a closed chamber with no access to the upper storeys. It was necessary to make a 90 degree turn to the left to end the main court. The outer door is small (it seems likely that horses were normally stabled in the great trench where there are traces of mangers and troughs, though no doubt they could be brought into the castle in times of war) and defended by a simple slot machicolation.

These three secondary towers have some interesting features. They are not much smaller than the donjon and no less well built. They project much

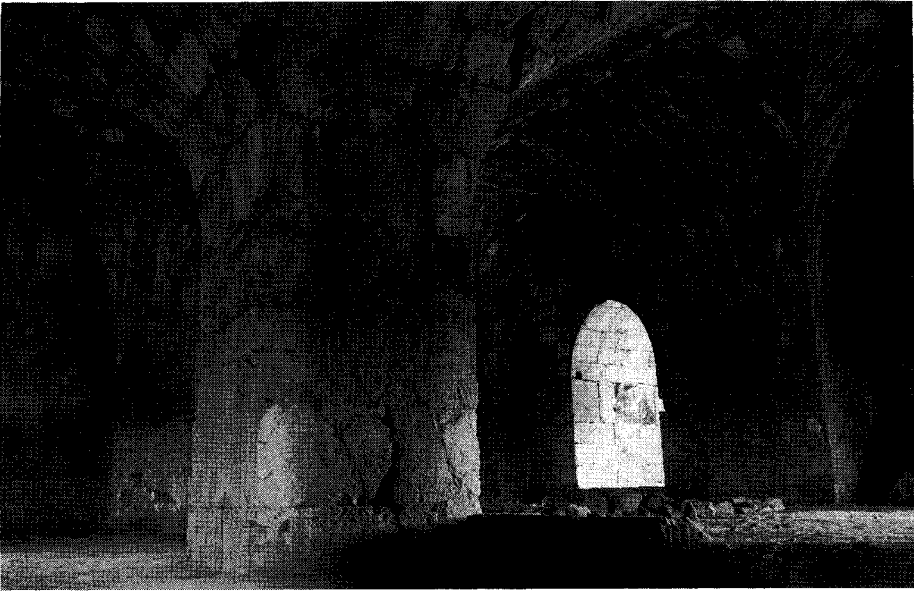


Plate 39 Saone: interior of first-floor chamber of donjon. The massive groin vaults are supported by a square central pillar.

further into the interior of the castle than they do outside the walls, and on the upper floors they have large rectangular windows to light gracious vaulted apartments within. Possibly connected with this is the apparent absence of any hall or communal living space. It seems that we should think of these towers as being residential as well as defensive, providing spacious apartments for a number of different households, somewhat like some late medieval English castles (Bolton is perhaps the classic example) and we have already seen that there were women and children among the defenders who were allowed to ransom themselves in 1188. In this way the secular castle, with its individual residential towers, was very different from the castles of the military orders with their halls, chapels and chapter-houses.

There are only three important pieces of Frankish work surviving in the interior of the court. One of these is a great cistern built into the ground with fine masonry walls and roofed in a graceful pointed barrel vault which makes it look more like an early Cistercian church than a water storage facility: very striking. Another feature is a large stone hall, inserted between the donjon and the west wall. Apparently a later addition, this has a low stone vault supported by numerous, massive, squat pillars and is almost unlit (plate 41); it was certainly not designed as the great hall of the castle. It may have been used for both residential purposes and stabling but its main function was undoubtedly to provide shelter from incoming missiles for those resting or

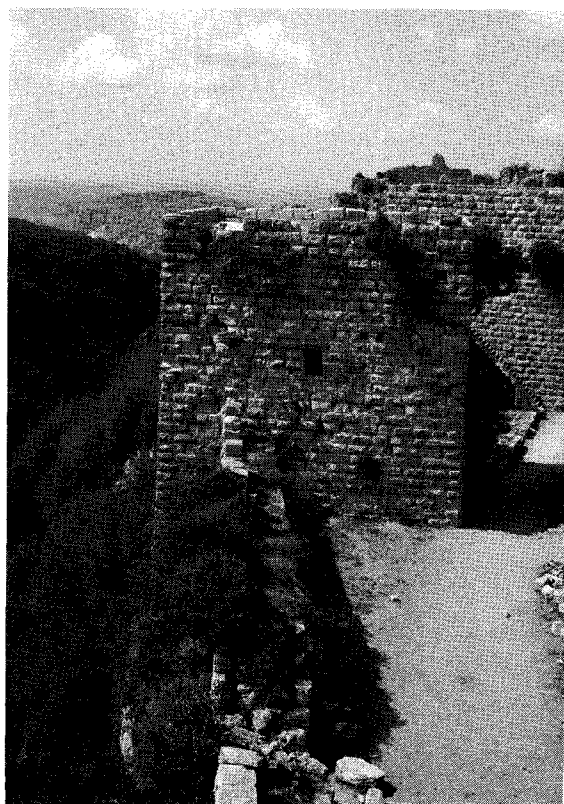


Plate 40 Saone: south curtain looking west from tower 4. Note that the tower projects further into the bailey than it does beyond the curtain wall, that it has a large window on the upper floor and that there is no direct communication between the tower and the curtain. The Frankish work at Saone is almost a group of independent tower houses sharing a common court.

non-combatant and it has direct parallels at Crac des Chevaliers and Beaufort. Finally the Crusaders built a simple chapel, with a single nave and a rounded apse, beside the Byzantine citadel.

They also made additions to the defences of the castletown enclosure. Here there were entrances on the north and the south, where access can be gained up a narrow path. The Franks fortified both these entrances, on the north with a single square tower (9) with a slot machicolation over the door, on the south with three square towers, the central one defending a bent entrance somewhat similar to the one into the castle.

Saone gives a clear indication of the appearance of wall-head defences as they existed in the twelfth century (plate 42). These are on two levels. On the roof-terrace level there are arrow slits in the walls while above that, reached by a short stair, there is a wall walk which gives access to crenellations with

CRUSADER CASTLES



Plate 41 Saone: vaulted shelter at southeast corner looking east. The shelter was constructed later than the towers around it to provide storage and shelter from missiles.



Plate 42 Saone: wall-head defences on tower at 4, looking south. Perhaps the most complete surviving example of Crusader wall-head defences, this shows a two-tier system with arched openings at roof level surmounted by a wall walk with crenellations: note the arrow slits in the merlons.

arrow slits in the merlons. Only in a few places (the postern by the great trench and on towers 4 and 9) are three corbels which could have supported either stone machicolations or simple wooden hoarding. In fact, while some provision is made for flanking fire from within the towers, the wall-head defences remain very simple.

The architectural features of the castle pose some interesting problems. The Byzantine fortifications used a variety of tower shapes and masonry techniques. The east wall of their fortress, subsequently overbuilt by the Frankish work, used round towers (unless, of course, this is an early phase of Frankish work). Such round towers also appear, in Crusader masonry, on the east front, as we have seen. However they are effectively unknown from other Crusader castles of the pre-Hattin period. Are all the round towers Byzantine work, or at least on Byzantine foundations? A further problem relates to the three towers on the south side of the village enclosure. In general design these rectangular towers are typical of twelfth-century Crusader work, including the straight stairs and the clearly Crusader wall-head defences, yet they are constructed in a smooth, but not regular, ashlar masonry, which is not the same as either the Byzantine or the Crusader work on the main fortress. Furthermore, in the interior of one of them, there is an arch built with the thin bricks typical of Byzantine work. These features led Deschamps to suggest that the three towers of the castletown enclosure and at least the foundations of the round towers on the east wall (and therefore the edge of the great ditch) were Byzantine work. But this need not necessarily be so. It is probable that the Crusader occupation was quite peaceful and that the inhabitants of the village, Greeks and possibly Armenians, continued to live there under new masters. It is also likely that the Franks used some locally recruited labour. In these circumstances, it is only natural to see Byzantine or Armenian characteristics in work of the Crusader period.

As so often, we have the fullest literary descriptions of the castle when it was besieged. In this case Arab historians give us a number of accounts of the fall of Saone which have been carefully analysed by G. Saadé.¹⁸ Saladin's assault began on 27 July 1188, when he and his son al-Malik al-Zahir arrived with their forces; Saladin camped and set up his siege engines on the plateau opposite the east front while his son established himself across the valley from the weakly defended north side of the lower enclosure. The bombardment began; some of the stone balls used, weighing between 50 and 300 kg, can still be seen on the site. The bombardment lasted all the next day and much of the fabric was damaged. On Friday, 29 July, Saladin gave an order for a general attack. Zahir's men stormed the castletown (*rabad*), where the inhabitants fled to the castle, leaving their meals uneaten. The Muslims continued their advance and it was then that they made use of the point by the north wall where the ditch separating castle and village had not been completed. They

soon stormed the walls and found themselves in the courtyard of the castle itself, where they seized beasts and other supplies. The garrison had by now retired to the donjon. By the end of the day they had been allowed to ransom themselves and been granted safe-conduct. It had taken just three days. The castle was strong and well provisioned but the garrison was probably inadequate and they seem to have lacked siege engines of their own or any other means of retaliating actively against their assailants.

Like Kerak, Saone played an important role under Muslim rule. Saladin entrusted Saone and Bourzey to one of his amirs, Mankawar, who held it as a fief in 1229. He was succeeded by his son and grandson until the castle was handed over to Sultan Baybars in 1272 by his great-grandsons who took up posts in the Mamluke administration (an interesting example of Mamluke centralism replacing Ayyubid 'feudalism'). Still later, in the 1280s, a Mamluke amir, Sunqur, made Sahyun the centre of a small semi-independent emirate until it was finally taken by Qala'un's commander in Syria in 1287 and incorporated in the province of Tripoli. The Muslim rulers repaired the walls and added some more luxurious residential accommodation in the court of the castle, including a mosque and some fine baths, but otherwise made few major alterations.

Nor was the castle completely unknown to the Franks; in 1225 a Venetian ambassador, Foscarini, was received at Saone and signed a commercial treaty with the amir. But there are also more gloomy associations. About 5 m above the bottom of the great trench, excavated into the rock, there is a prison, a windowless cavern whose roof is supported by a single pillar. Among the unfortunates confined here was Pierre de Queivilliers. We know of him because a letter, dated to May 1227, has survived from his son to the Hospitallers, who had been negotiating for his release, telling them that he had died in captivity. It may well have been in this dismal, sunless hole that Pierre passed his last days, dreaming no doubt of the open meadows and broad, slow rivers of his native Picardy, and it may even have been he who carved the crude cross which can still be seen on one of the walls.¹⁹

The Crusaders occupied the County of Edessa between 1097 and 1144 when the city fell to Zengi. They are known to have built and repaired castles in the area but there is no construction that can reliably be assigned to the Crusader period.²⁰ The citadel at Edessa itself has been frequently modified from antiquity onwards and while there are some features, like rock-cut ditches and bossed masonry, which have parallels in Crusader work elsewhere, there is no evidence to substantiate this. The castle at Tell-Bashir, the second most important in the country and home of the Courtney family, is no more than a few stones on the summit of a giant tell.

There is, however, one castle in the northern fringes of the states which seems to have an interesting and very early Crusader provenance. This is at

the castle at Anavarza in Cilicia, already noted for its fine Armenian round towers. In the narrow waist of this large fortified plateau, there are the substantial remains of a large square donjon, built in the squared, bossed masonry which is characteristic of much Crusader building further south. The donjon is separated from the rest of the castle by rock-cut ditches. The surviving chambers of the interior show fine groin vaulting. These, and other factors, have led Edwards²¹ to assign this building to the brief Frankish occupation during and immediately after the First Crusade (1098–1110). If this is correct, it is, as he notes, ‘perhaps the first known example of Crusader military construction in the Levant’. It is interesting in being a square donjon placed in an existing enceinte and showing at this early stage typically Crusader techniques of vaulting.

The Crusader building in the northern Syrian hills is astonishing both in quantity and quality. Apart from Antioch itself, the area between the Orontes and the sea had never been very rich or prosperous; even in antiquity its cities were modest compared with those in other parts of Syria and Palestine. Only in the two centuries of Crusader rule did this area produce architecture of world class, and the steep slopes and narrow valleys must have rung almost unceasingly to the sound of masons’ hammers.

SIEGE WARFARE IN THE CRUSADER LANDS



MOST Crusader castles were designed to resist armed attack by large forces for a considerable length of time. The builders who constructed them were keenly aware of the weapons available to the assailants and tried to devise ways of countering them. The development of castle architecture must be seen as the result of a continuing dialectic between attack and defence which gave the advantage sometimes to one, sometimes to the other. Only by examining techniques of attack can we come to a real understanding of the architecture of defence.

The most basic way of taking a castle was by blockade and starvation of the defenders; simply by surrounding the place and preventing anyone getting in and out famine would complete the task at minimum risk to the attacking army. In practice, forcing surrender in this way was usually impractical and it could only be achieved in special circumstances. The problems for the attacking army were numerous. To begin with, it was not only the defenders who had to eat; the besieging army had to be supplied and this often caused major problems. When the Crusaders blockaded Muslim-held Antioch through the grim winter of 1097–8, their forces suffered terribly from hunger and they were forced to send off foraging parties further and further into the already ravaged countryside; even so, famine among them almost caused the collapse of the whole project. The defenders, by contrast, seem to have been comparatively well provided for and it was treachery, not starvation, which finally led to the fall of the city. Lack of water was a very severe problem for the Crusaders during the siege of Jerusalem in the summer of 1099 but the defenders of the city seem to have had no such problems.¹

The anonymous author of the treatise on the construction of the castle at Saphet puts the position clearly: 'It [the castle] cannot be besieged without a

very large army but such an army would not have supplies for long since it would find neither food nor water, nor can such a very great number be near at the same time and, if they are scattered in remote places, they cannot help one another.²

Castles were often very well provided with food. Margat held supplies for a five-year siege. When Kerak was besieged by Saladin, it is said to have had plenty of food but to have been short of arms. When the Muslims occupied Gastun (Baghras) in 1269 after the garrison had fled, they 'found no-one in it except for one old woman but the place was discovered to be full of grain, provisions and everything else which is stored in such forts'.³ Large castles were equipped to prepare large amounts of raw grain; at Crac des Chevaliers there were ovens, huge oil jars and a windmill on one of the towers. Two massive ovens survive in the vaults at Margat. At Saphet 12,000 mule loads of barley and corn were consumed each year and there were windmills, ovens and twelve watermills outside the castle. In most cases, starving these castles out was a forlorn hope.

They were equally well supplied with water. There were three ways of providing this. The first was to dig wells to fresh water. At Montreal a steep passage leads far down in the rock on which the castles stand to a spring-fed well. During the rebuilding of Saphet, water supply proved very difficult until an old, spring-fed well was discovered and opened up. There were three wells of fresh water at Chastel Pelerin and one very deep well was unearthed at Crac during restoration work. No doubt other castles had wells which are yet to be discovered.

Covered cisterns were a common way of providing a water supply. Often these were under the main block or donjon of the castle, as at Giblet or Chastel Blanc where they were under the main keep. On a more modest scale, the hall-house at Calansue and the keep at Caco both had underfloor cisterns, the one at Caco being filled by water collected on the roof and led down through an earthenware pipe in the thickness of the wall.⁴ The small keep at Tukhlah in the County of Tripoli was similarly equipped.⁵ At Crac des Chevaliers there are no less than nine cisterns, again filled by water collected on the flat roofs. At Saone there are two magnificent cisterns with vaulted roofs, the one in the courtyard being 36 m long and covered with a plain pointed tunnel vault in smooth ashlar masonry which makes it look at first glance more like a church than a public utility.

The third way of keeping water was in an outside cistern known as a *berquilla* (from the Arabic *birkah*), a great tank open to the sky. Such open cisterns would probably be less suitable for drinking water as dust would blow in and algae grow more easily than in the covered ones. They often formed an integral part of the defences since sappers would find that digging a tunnel underneath a cistern full of water added another hazard to an already perilous

operation. At Kerak, Beaufort, Gibelacar and Margat they were placed on the narrow ridge which formed the most vulnerable aspect of the castle. At Crac des Chevaliers the berquilla lay between the outer and inner walls but this was an unusual arrangement. Sometimes, as at Crac and Gastun, they were filled by aqueducts but more usually water was channelled into them from the nearby hills and the terraces of the castle. The systems were ingenious and successful: surprisingly, given the arid nature of much of the area occupied by the Crusaders, there does not seem to be a single recorded example of a Crusader castle falling through lack of water.

An attacker also faced the problem of keeping the besieging army in the field for long periods with little prospect of booty to keep morale high. After the fall of Gastun in September 1188, Saladin wished to move on to the siege of nearby Antioch but 'he was aware that the determination of his troops, especially those from far away, had weakened and their zeal for the Holy War had flagged and they only wanted to return to their countries and rest from fighting',⁶ so he abandoned the project, intending to return next year. In fact, he never came back and the city remained in Christian hands for the next eighty years. The campaigning season was normally limited to the spring and summer, and a winter spent in soggy tents and muddy trenches was not an appealing prospect. Saladin conducted a winter campaign in 1188-9, but it was not easy going. He began the attack on Saphet in October: 'He was not deterred by the fact that he was leaving his family, his children and his home during a month when everyone, no matter where he may be, is anxious to return to the bosom of his family' and this determination to pursue the expedition at this time of the year is seen as evidence of his exceptional dedication to the Holy War. It was no picnic: 'Saphet is a very inaccessible fortress, the ground all round being broken up by deep ravines. The army invested the place and placed its mangonels in position ... rain was falling in torrents and the ground became a swamp but this did not affect the Sultan's determination,' in the end the engines did their work and the castle surrendered on 6 December.⁷ This problem was largely solved by Sultan Baybars and his Mamluke successors. Partly because of the increasing professionalism of the Muslim armies and partly because of the more efficient use of artillery, sieges became much shorter and castles fell within a few weeks or not at all. No major Crusader castle in the late thirteenth century survived a siege of more than six weeks, Arsuf (1266), Saphet (1266), Crac des Chevaliers (1271), Margat (1285) and Acre (1291), all of which are said to have resisted for about six weeks, being the longest.⁸

The difficulty of forcing surrender by starvation was made clear in the case of Belvoir after the main Crusader army had been destroyed at Hattin in July 1187. This was held by the Hospitallers and was well supplied but the garrison must have been sadly aware that here was very little prospect of relief. Despite

this the blockade proved ineffectual. The force which had been left to prevent supplies from reaching the castle had been surprised in a night attack so, despite the snow and the cold, Saladin was obliged to come in early March 1188 to retrieve the situation. He soon realised the task was impossible and he abandoned the siege in May: 'He saw that it would be necessary to employ a great number of troops to reduce this place, for it was very strong, most amply provisioned and garrisoned by determined men whom, so far, the war had spared.' The next winter, after the fall of Saphet, he returned to Belvoir and once again the attack turned into an endurance test:

The walls [of the castle] built of stones and clay afforded perfect protection to those behind it so that no one could appear at the entrance of his tent without putting on his armour. Rain fell without ceasing and the mud was so thick that it was impossible to get about, either on foot or on horseback. We suffered terribly from the violence of the wind and the heaviness of the rain, as well as from the proximity of the enemy who, from their position necessarily commanded our army, killing and wounding a great number of men.

In the end it was the undermining of the walls, not hunger, which led the garrison to ask for terms. The limits of the effectiveness of blockade were clear: only a very ill-prepared defence could be starved into submission during a summer season while maintaining a siege through the winter was well-nigh impossible.⁹ Even Baybars, the most determined and skilful exponent of siege warfare in the entire Crusader period, only campaigned on a seasonal basis, returning to the citadel in Cairo for the winter.

The occasions when shortage of supplies did force surrender were when the defence was damaged by other factors. When Zengi blockaded King Fulk at Montferrand in 1137, starvation played an important role in the King's surrender because 'the Christians were obliged to use their horses for food, since there was nothing else. After these were gone there was no food of any description, so even the strong and robust grew weak from hunger and feebleness, induced by famine, ravaged the strength of even the most vigorous.'¹⁰ But the circumstances here were unusual: not only had the king and the royal army taken refuge in this frontier fortress, but there were many other refugees who had brought no supplies with them and stores which might have supplied the normal garrison for a long time were soon consumed. When Saladin attacked the castle at Kerak in 1183, the defenders were short of arms but, despite a great influx of refugees from the town, they had sufficient food.¹¹

Starvation was also decisive if there was no hope of relief. After the battle of Hattin had destroyed the Crusader field army, the castles of Outrejourdain were left completely isolated from any hope of help. The fate of these garrisons is described in one version of *L'estoire d'Eracles*

When [Saladin] had taken all the cities and all the castles of this side of the river Jordan, he went on to attack le Crac [Kerak]. He firmly believed that it would surrender on his arrival. There were good people inside the castle who did not wish to disgrace themselves or harm the Christian cause. They held out and defended it vigorously for so long that they ate dogs and cats and all the animals in the castle . . . He also laid siege to Montreal which is 36 miles from Crac. Montreal is in Idumaea and Crac in Moab. They endured the siege so long that they sold their wives and their children to the Saracens to get bread. And those in Montreal lost their sight, so that they could no longer see, for lack of salt which they did not have, not wanting to do any harm [*meschief*] to the castle. So they waited day after day for God to send them help. Saladin several times offered them sufficient money and safe conduct to Christian territory, but they refused.

Kerak surrendered in October/November 1188 and Montreal in April/May 1189, and Ernoul says that Saladin restored their families to them.¹²

Simple blockade was resource-consuming and ineffective: more active methods of attack were developed to speed things up. As far as we can tell, the technology of siege warfare was very primitive in western Europe at the time of the First Crusade. The Bayeux Tapestry shows attempts to storm castles using ladders and to set fire to the wooden palisades with firebrands. When Louis VI of France, a very experienced warrior, attacked the castle of Le Puiset in 1111 his siegecraft consisted of little more than rushing at the walls and attempting to scale them, and the use of primitive incendiary devices to set fire to the wooden palisade.¹³ It is not until the middle of the twelfth century that artillery was used effectively at the siege of Lisbon in 1147. From 1151 we have the famous account of Geoffrey the Fair, Count of Anjou, at the siege of Montreuil-Bellay when, after reading the work of the Roman military theoretician Vegetius, he had a catapult constructed to hurl a cauldron of hot oil at the wooden gates of the castle.¹⁴ Not until the beginning of the thirteenth century were siege engines and sapping regularly and effectively used in western Europe.

In the Levant in the early twelfth century it would seem that the technology of building siege engines was much more developed than in the west and that the Crusaders soon adopted it. It is striking that the Crusaders seem to have been unable to make use of either artillery or sapping in the long siege of Antioch in 1097–8 but that by the time that the Crusaders attacked Jerusalem in the summer of 1099 they were using both catapults and tall siege towers. Construction of the siege engines was entrusted to Gaston de Béarn, who may have had experience of Muslim warfare in Spain; the army was aided in this by the arrival of Genoese sailors who used their skill with wood and rope to build engines.¹⁵ Despite these advances, the Crusaders seem to have lagged behind in technical expertise in both sapping and the construction of artillery.

Not until the arrival of Richard Cœur de Lion and Philip Augustus at the siege of Acre in the summer of 1191 do the Crusaders seem to have been able to use artillery to destroy large-scale fortifications. When Richard came to attack the small castle of Darum in 1192, he hired sappers from Muslim Aleppo whom he recruited at Acre, to do the work for him.¹⁶

The Franks did continue to use devices which were peculiar to them, notably the protected battering rams known as sows or cats which were unknown to the Muslims and the great movable siege towers. These had been used to great effect at the siege of Jerusalem in 1099 and, despite the fact that they were both costly and clumsy, continued to be employed by the Franks. They could be very effective in the right conditions: William of Tyre describes one in use against the city of Banyas, besieged by the Crusaders and their Damascene allies in 1140:

Soon an engine of great height towered aloft, from whose top the entire city could be surveyed. From this vantage point, arrows and missiles of every sort could be sent, while stones hurled by hand would also help to keep the defenders back. As soon as the engine was ready, the ground between it and the walls was levelled off and the machine was brought up to the ramparts. There, as it looked down upon the whole city, it seemed as if a tower had suddenly been erected in the very midst of the place. Now for the first time the situation of the besieged became intolerable; they were driven to the last extremity, for it was impossible to devise any remedy against the downpour of stones and missiles which fell without intermission from the movable tower. Moreover there was no safe passage within the city for the sick and wounded, or where those who, still strong and vigorous and sacrificing themselves in the defence of others, could withdraw for rest after their labours. In addition, they were now debarred from passing back and forth about the ramparts and could not, without peril of death, carry aid to their comrades who were falling. For the weapons and modes of assault used by those fighting below could be considered little or nothing in comparison with the manifold dangers to which they were exposed from the fighters in the tower. In fact, it seems to be rather a war with gods than with men.¹⁷

This was the theory, and at Banyas, a small, poorly defended city on a comparatively level site, it worked. At the siege of Acre and elsewhere, however, the towers proved vulnerable to incendiary attack. The filling in of ditches in front of the ramparts often proved a major problem. It is not surprising that this form of attack was not favoured by Muslim armies.

Muslim siege techniques were based on undermining the walls (sapping) and the use of siege engines, at both of which they proved greatly superior to their Christian opponents.

An early detailed account of mining is provided by Usamah b. Munqidh from the siege of Kafartab (a town across the Orontes briefly held by the

Crusaders) in 1115 and it is perhaps worth quoting in full for its vivid first-hand description.

It occurred to me to enter the underground tunnel and inspect it. So I went down in the trench, while the arrows and stones were falling on us like rain, and entered the tunnel. There I was struck with the great wisdom with which the digging was executed. The tunnel was dug from the trench to the *bashurah* [the usual Arabic term for an outerwall]. On the sides of the tunnel were set up two pillars, across which stretched a plank to prevent the earth above it from falling down. The whole tunnel had such a framework of wood that extended as far as the foundations of the *bashurah*. Then the assailants dug under the wall of the *bashurah*, supported it in its place, we went as far as the foundation of the tower. The tunnel was narrow, it was nothing but a means to provide access to the tower. As soon as they got to the tower, they enlarged the tunnel in the wall of the tower, supported it on timbers and began to carry out, a little at a time, the bits of stone produced by boring. The floor of the tunnel was turned into mud because of the dust caused by the digging. Having made the inspection, I went on without the troops of Khurasan [where the miners came from] recognizing me. Had they recognized me, they would not have let me off without the payment of a heavy fine.

They then began to cut dry wood and stuff the tunnel with it. Early the next morning they set it on fire. We had just at that time put on our arms and marched under a great shower of stones and arrows to the trench in order to attack the castle as soon as its tower tumbled over. As soon as the fire began to have its effect, the layers of mortar between the stones of the wall began to fall. Then a crack was made. The crack became wider and wider and the tower fell. We had assumed that when the tower fell we would be able to go in and reach the enemy. But only the outer face of the wall fell, while the inner wall remained intact. We stood there until the sun became too hot for us, and then returned to our tents after a great deal of damage had been inflicted on us by stones, which were hurled at us.

In the end the Muslims did enter the castle by climbing up the ruined wall, but only after a hard struggle. An interesting feature of this account is that Usamah finds the mine unusual and interesting. Furthermore the miners came not from Syria but from Khurasan in northeast Iran. This may mean that the technology was a comparatively new import to the area, brought by Iranians employed by the Saljuks and their successors.

Another account showing the devastating effect of mining comes from 1123 when Fulcher of Chartres is describing the adventure of King Baldwin II at Kharput, north of the County of Edessa. The king had been sent to the castle as a prisoner, but with the aid of some local Armenians had succeeded in taking it over. The Muslim lord Belek was furious and began to attack it:

He immediately ordered the rock on which the castle was situated to be undermined and props to be placed along the tunnel to support the works above.

Then he had wood carried in and fire introduced. When the props were burned the excavation suddenly fell in, and the tower which was nearest to the fire collapsed with a loud noise. At first smoke rose together with the dust since the debris covered up the fire but when the fire ate through the material underneath and the flames began to be clearly visible, a stupor caused by the unexpected event seized the king¹⁸

and he and his companions soon surrendered. This account reads as if it is based on an eyewitness description and offers a textbook example of the effectiveness of undermining.

Mining played a significant part in the sieges after the battle of Hattin. In 1188 Saladin was able to take the castle of Trapesac in the Principality of Antioch after one tower had been brought down. It was also important in the fall of the city of Jaffa (the Crusaders held the citadel) during the Third Crusade. Here a section of the wall was undermined and 'fell with a fall like the end of all things' but the defenders were ready. 'A cloud of dust and smoke arose from the fallen wall that darkened the heavens and hid the light of day, and none dared enter the breach and face the fire. But when the cloud dispersed, it disclosed the wall of halberds and lances replacing the one that had just fallen'¹⁹ and the Muslims still had a hard struggle to force an entry.

In the thirteenth century both mines and countermines were used. At the siege of Saphet in 1266 Baybars is said to have ordered the digging of a number of tunnels one of which was intercepted by a Frankish countermine and fierce fighting ensued. Later the saps were used to make breaches in the outer (*bashurah*) walls which caused the garrison to retreat to the inner citadel where they finally surrendered,²⁰ under the sad delusion that they had been given safe conduct. Our understanding of the siege at Saphet is made more difficult by the fact that there is no archaeological evidence of the position and effect of the mines. In the case of Crac des Chevaliers, besieged and taken by Baybars five years later in 1271, we are on firmer ground. Here the Muslim miners brought down one of the massive towers in the outer wall from which the area between the inner and outer lines of defence was entered. As at Saphet the fall of the outer defences meant that the garrison asked for terms, although Baybars may have deceived them with a forged letter purporting to come from the Grand Master ordering them to surrender.

The final fall of Margat in 1285 was also achieved by mining. In this case numerous tunnels were dug under the citadel with Sultan Qala'un supervising in person. It seems that the tower of the spur of the lower enceinte settled into one of the towers and crushed it but that the defenders realised that the position was hopeless and opened negotiations which led to the final surrender.²¹

Mining was clearly very effective on occasion but it had drawbacks. The work was skilled, dangerous and time consuming. It also required large numbers of men: Sultan Qala'un brought 1,500 miners with him for the final

assault on Tripoli in 1289 though in the event they were not needed. Nor were all castles able to be attacked in this way. Some were built on solid rock; 'Imad al-Din comments that the rocky terrain at Kerak prevented mining.²² The citadel at Caesarea was impossible to undermine because, when St Louis had reconstructed it, he had placed classical columns horizontally through the walls (a similar technique can still be seen in the walls of the citadel at Giblet) but also because the sea flowed around the moat which would have flooded the workings. Furthermore, mining at this time seems to have been done using short tunnels from the base of the wall.²³ Saladin's mine under the tower of the castle at Le Chastellet in 1179 was only 30 cubits long (15 m) and 3 cubits (1.5 m) wide under a wall which was itself 9 cubits (4.5 m) thick.²⁴ This meant the workings were easily detected and destroyed by the defence. Mining, in short, was effective if the circumstances were right. Catapults by contrast could be used in almost any situation.

It is easy to imagine that medieval siege engines were slightly ridiculous, rather Heath-Robinson affairs, worked, so to speak, by string and rubber bands and that it was only with the coming of gunpowder that artillery posed a serious threat to castles. Consider now this description²⁵ of the siege of the castle of Montferrand in 1137:

Meanwhile, Zengi continued his vigorous attacks upon the besieged with unremitting zeal. The very walls shook under the impulse of his mighty engines. Millstones and huge rocks hurled from the machines fell into the midst of the citadel, shattered the houses within, and caused intense fear to the refugees there. Great fragments of rock and all kinds of whirling missiles were hurled with such violence against them that there was no longer any place of security within the walls where the feeble and wounded might be hidden. Everywhere was danger, everywhere hazard, everywhere the spectre of frightful death hovered before their eyes. Apprehension of sudden destruction and a sinister forboding of disaster ever attended them. With this very object in view, their cruel foe redoubled his assaults. He arranged his men in alternative divisions and, by using successive relays, renewed his strength. When the first detachment became weary, fresh men were brought into line, so that the battle seemed continuous rather than begun anew. Insufficient numbers prevented the Christians from enjoying these refreshing changes, yet they sustained with unswerving exertion not only the earlier but also the later attacks. But some succumbed to severe wounds and others to illness of various kinds so that day by day our ranks decreased. One failing was common to all, the impossibility of enduring constant engagements. Their nights devoted to keeping watch, were sleepless, while during the day their strength was further exhausted by never ending combat.

This sounds more like the battle of the Somme than a chivalric romance and the author shows not just the physical destruction caused by the catapults but the psychological stress which resulted.

The history of siege engines is complex and is made much more difficult by the vagueness of medieval descriptions. It is usually said²⁶ that three types of siege engines were in regular use, the mangonel, the petrary and the trebuchet, the first two using torsion or twisted ropes to propel a missile, the third using a counterweight. In fact there is little if any evidence for the use of torsion catapults in crusading warfare and by far the most important artillery piece was the swing beam engine, known in Arabic as a *manjaniq* and in the west as a trebuchet. This engine consists of a long beam placed over a fulcrum so that one end projects much further from the fulcrum than the other. A stone or other ammunition is placed in a sling at the end of the long end. Then the short end is brought down sharply, causing the tip of the long end to rise much faster to a vertical position. The sling at the end of the long end whips round to release the projectile at great speed.

The swing beam siege engine was probably invented in China and the first clear description of it in the Mediterranean lands comes from a description of the Avar attack on Thessaloniki in 597 in the *miracula* of St Demetrius.²⁷ It was widely used in the Islamic world from the time of the Prophet onwards and appears in the Latin west during the 885–6 Norse assault on Paris, though the technology seems to have fallen into disuse there until the second half of the twelfth century. In these early trebuchets, manpower was used to bring the short end of the beam down: men would hold on to cords hanging from the short end, and, on a given instruction, pull it down with as much force as they could muster. This system meant that the engines were simple, effective and comparatively easy to transport, and they were widely used in the Mediterranean world in the twelfth century, from the Crusader states to Portugal, whence there is a full account of their effectiveness in the Christian conquest of Lisbon in 1147.

During the twelfth century a new and more effective version of the swing beam engine was developed. This used a heavy counterweight rather than manpower to bring the short end down. At first this counterweight was a net full of stones but in the thirteenth century it was more often a wooden box full of rock or sand. While this was more difficult to transport and construct, it had a number of advantages over the manpowered version. It could be operated by a much smaller crew and it could maintain a constant aim, enabling the same piece of castle wall to be hit time after time. These new-style trebuchets seem to have been invented by the Byzantines and are first recorded in use in 1165. Fortunately, we have an Arabic treatise, with illustrations, on these new weapons written by one Mardi b. 'Ali al-Tarsusi and presented to Saladin around 1180.²⁸ This makes it clear that the counterweight machine was then known to the Muslims so it is likely that it was used, at least in a limited scale, in Saladin's campaigns between 1187 and 1189 when so many Crusader castles were reduced. Thirteenth-century and later Arabic treatises

describe a number of different trebuchets, ranging from small, hand-operated ones mounted on single poles to heavy artillery.

The range and power of this artillery was formidable. The ammunition often consisted of specially rounded stones. Some of these survive at Saone castle and weigh between 50 and 300 kg, and projectiles of up to 200 kg are known from literary sources. Tarsusi says that the maximum range for a traction trebuchet was about 120 m but there is evidence that it could be as much as 200 m. By comparison, the maximum range of bow-shot was about 140 m. Counterweight trebuchets probably had a longer range still. It may have been this increased range which was the undoing of the defenders of Saone in 1188; they had expected to be attacked by engines firing from across the great trench to the east and had fortified the site accordingly, but they seem to have been unprepared for engines firing across the valley from the north, a distance of perhaps 200 m.

The development of this new and improved artillery fundamentally changed the balance between attack and defence. The engines became so effective that, given uninterrupted firing time, they would reduce any fortress to rubble. It was no use sitting behind castle walls and trusting in their strength: unless the defenders took active measures to neutralise the artillery, the fortress they had built would be destroyed as surely as the incoming tide washes away the children's sandcastle.

Accounts of the sieges at Kerak and Saone show that Saladin had mastered the effective use of artillery but his efforts were on a fairly modest scale, six or eight engines. The real master of the craft was Sultan Baybars (1260–76). His success was due to his ability to organise and deploy these clumsy and costly machines as much as in the actual firing of them, though, like Saladin, he saw that his personal involvement in the fighting was essential if real progress was to be made. His first major success was against Caesarea in 1265.²⁹ The walls of the town fell easily when his men used their horse pegs and bridles to create makeshift rope-ladders and haul themselves to the top. The Citadel, recently fortified by St Louis, was said to be the most formidable on the coast. Undermining was impossible because the workings would be flooded with seawater. Trebuchets played a vital part in reducing the castle and Baybars also used the covered shelters mounted on wheels which the Arabs called *dababat* (which is also the modern Arabic word for tanks) and which were used to approach the base of the wall, the sultan himself sheltering under one to see how digging was progressing. He gave robes of honour to the commander of the siege engines, 'Izz al-Din al-Afram, for the work he had done.

Trebuchets were equally decisive in the capture of Arsuf which followed immediately afterwards.³⁰ They were brought ready made from Damascus and were carried shoulder high over difficult stretches of the route. Before the trebuchets could be deployed effectively, the ditches which protected the

castle had to be filled in and this proved the most difficult part of the operation. When the engines had made gaps in the wall, the Muslim stormed the outerworks (bashurah) and negotiations for surrender began. Once again, 'Izz al-Din al-Afram was decorated for his efforts.

During the siege of Saphet later in 1266,³¹ the trebuchets were again brought to the site, probably from Damascus, and their arrival signalled the beginning of real operations. The sultan sent 'Izz al-Din out to meet them. They were brought on camels as far as Jacob's Ford on the Jordan but had to be carried or dragged from there, the sultan himself lending a hand, and his biographer comments on his endurance. In 1268 it was the turn of Beaufort.³² Once again, beams for the trebuchets were brought from Damascus, two began bombardment the day after the sultan arrived on 4 April and twenty-six were in operation by the end of the siege. The enemy soon stormed the new bastion constructed by the Templars to the south of the main castle and the sultan used it as an observation post and a base for his artillery. His governor of Egypt had sent a gift to help the campaign and this was used to pay the crews of trebuchets in his name. The Franks seem to have suddenly lost their nerve and on 15 April asked for terms, chivalrously accepting that the men would be made prisoner while the women and children were allowed to depart to Tyre.

The last phase of Baybars' conquests in 1271 shows the same reliance on artillery. After mining had brought down a section of the outer wall at Crac des Chevaliers, it was the arrival of his siege engines within striking distance of the great towers of the inner wall which induced the garrison to surrender. Immediately afterwards, on 29 April, he set about taking the castle of Gibelacar with his usual determination, riding on the carts which carried the timbers for the mangonels and helping dig and level the land around this mountainous site so that they could be set up. By 11 May the garrison had prudently decided to surrender.

Trebuchets were central to Baybars' achievement and played a vital role in every one of his successful assaults on Crusader castles. His achievement depended on his vigour and skills as an organiser and the almost industrial system he seems to have developed for erecting large numbers of prefabricated siege engines in a short period of time. But despite their formidable power, the engines had their limitations. Only leaders prepared to commit massive resources and determination could really use them effectively; a Saladin or a Baybars could, but when the much more feeble Ayyubid, al-Malik al-Mu'azzam attempted to deploy them against the newly erected Templar castle at Chastel Pelerin in 1220, he found that they would not reach the main walls and, making no effort to fill up the ditches or destroy the outer defences, he moved off.³³

The Crusaders who came to the Levant in the twelfth century found siege

techniques, notably mining and artillery, much more advanced than those in their homelands. In the two centuries which followed, artillery continued to develop rapidly in terms both of technical innovation and of more effective methods of deployment. But although they were very formidable weapons, there were still ways in which a castle architect could frustrate them. They needed level access close to the walls; they were vulnerable to sallies from the garrison which could destroy or burn them and the fire from engines and archers from within the castle which could impede or cut short their work. It was these limitations that castle architects tried to exploit in order to render their castles impregnable.

Castle builders responded with skill and ingenuity to the growing threats posed by mining and siege engines, threats which was made cruelly apparent in the fall and destruction of Le Chastellet in 1179 and the subsequent failure of most castles to survive Saladin's attacks from 1187 to 1189. The designs of the twelfth century had to be substantially modified and improved to face these new challenges.

Attacking the besiegers and preventing them digging their mines or setting up the engines was an attractive proposition. The Muslims showed themselves masters of this, as was demonstrated on several occasions at the siege of Acre (1189-91) when swift sorties from the garrison led to the destruction of carefully constructed battering ram engines by fire.³⁴ The Crusaders were less successful in arranging sorties, at least in part because they never seem to have mastered the technology of incendiary devices, notably the crude oil-based inflammable materials which the Arabic sources call *naft* and which are usually described as Greek Fire in modern literature. The Muslims used it to good, but ultimately unsuccessful, effect during the 1099 siege of Jerusalem which shows that the technology was already well developed in the east. It was *naft* which allowed the defending garrison to wreak such havoc on the Crusader machines at Acre.

Nonetheless Crusaders did make sorties to attack their tormentors, as when the garrison at Belvoir successfully broke the blockade by a sortie during the first siege in 1188, killing the Muslim commander. Sultan Baybars was almost killed in the trenches when taken by surprise by a Frankish sortie during the siege of Arsuf, 1266.³⁵

There were perils, however, in making sorties, not least of which was the return to the castle. The defenders of Banyas found this out to their cost in 1157.

One day, while the foe [the Muslim army commanded by Nur al-Din] was pressing them more fiercely than usual, the besieged opened the city gate and made a sally against the enemy outside. Since they offered battle without due caution, however, they roused a multitude of the enemy against them. The Turks rushed upon them, and the citizens, unable to maintain their position,

tried to withdraw into the city. The gate could not be shut, however because the pressure of the crowd trying to enter was so great. Consequently the enemy, intermingling with the townspeople, entered in such large numbers that the town was taken by force.³⁶

At Jaffa in 1197 the defenders had actually refused to let the sortie party back in when they were obliged to retreat.³⁷

In order to reduce the danger of losing a castle in this way, and to increase the element of surprise, castles were equipped with a number of special postern gates. Typically, this gate was small, low (no need for horses to enter here) and in the re-entrant angle between tower and curtain wall where it could be concealed from enemy view and completely covered by the defenders' fire. At Belvoir, a state-of-the-art fortification of the 1170s, four postern gates can be identified, each either in or beside a tower. At Chastel Pelerin, built in 1218, each of the three projecting towers of the outer land wall (the direction from which attack would come) had two posterns, one on each side, defended by machicolations above.³⁸ That the provision of postern gates continued to be an important consideration can be seen at Crac des Chevaliers, where one of the last Hospitaller constructions was a postern gate of the second half of the thirteenth century opened in the re-entrant angle of one of the towers when Nicholas Lorgne was castellan (at some time between 1254 and 1269).³⁹ As well as having towers on each side, this was defended by a portcullis and almost certainly machicolations, though the present ones are Muslim rebuilding after the originals had been damaged in the assault of 1271.

But launching sallies was not always possible and architects also devised ways of defence which were less risky. The main purpose of these devices was to keep both miners and siege engines away from the walls and so prevent them from inflicting serious damage.

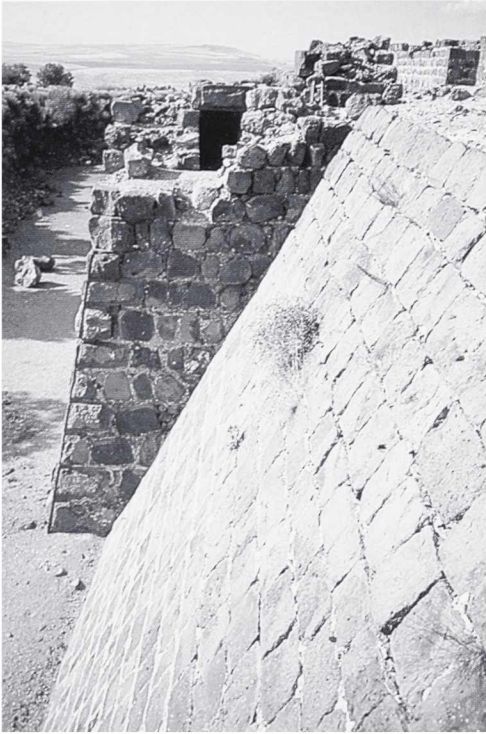
An obvious way of doing this was the use of natural or artificial ravines. Many Crusader castles were built on craggy hills so the ground sloped away steeply on most sides. Montreal is on an isolated summit and it probably survived its epic two-year siege (1187–9) because there was no angle from which siege engines could be brought up against the walls. More common was the spur which left one vulnerable side where the castle could be approached. In the case of Beaufort and Crac des Chevaliers the successful assault was launched from this side because it provided the only access. Where natural escarpments were lacking, artificial substitutes were created. At Kerak and Saone these took the form of stupendous rock-hewn chasms (the one at Saone survives to its full depth, 30 m; the one at Kerak, apparently originally just as deep, has since been almost completely filled up). Another form of protection was the *berquilla* or cistern (discussed above) which could be dug out of the rock and which served the dual purpose of providing a water supply in normal conditions and an extra line of defence in times of emergency. The struggles

of Saladin at Kerak in 1184 and Baybars at Arsuf in 1266 to fill the moats before a serious assault could begin, show how effective they were.⁴⁰ Since freshwater moats were impossible on most Syrian sites, seagirt castles were the best protected against mining. No one could sap the walls of the sea castle at Sidon on its island and one of the strengths of Chastel Pelerin was that it only needed to be defended on one short, landward side, since it stood on its own little peninsula. However strong the Muslims were on land, the Franks had almost unchallenged command of the seas; only once, at Ascalon in 1247, did the Muslims attempt to attack a Christian strong point from the sea.⁴¹

Earthworks were tried in some places. At Beaufort and Crac des Chevaliers, separate outer defences were built on the neighbouring hill. These seem to have been of earth and stones rather than worked masonry. In both cases they turned out to be a mistake; with the very limited manpower available, they could not be held, and Baybars used them as platforms for the very siege engines they were supposed to be keeping at a safe distance.

An outer line of stone walls was both more usual and more effective, giving rise to what is somewhat misleadingly called a concentric castle (misleading because none of these castles is actually round). The idea of putting a low outer wall in front of a higher inner one was not new with the Crusades. It had been employed in the Theodosian walls of Constantinople in the fourth century, advocated by Procopius in the sixth and employed at Korikos in the early twelfth. On occasion, where the terrain suited, it was used by Crusader builders. In fact a complete double circuit of walls was quite rare. In some cases the outer line of walls simply protects a lower area of the castle which might otherwise be used as a base of attack. Both Beaufort and Kerak have lower baileys along one side of the main citadel (although in both cases the surviving masonry dates from the Muslim period) and Rochefort (Bourzey) has a small, well-defended lower enclosure, but this does not make them concentric castles and at Kerak the vulnerable approaches were protected by a single wall only. The Templar castle at Gastun (Baghras), on a rocky knoll, is another castle where the steep slope of the site meant that lower and upper walls were required. Saone boasts a complex pattern of multiple walls (no less than five according to Muslim observers) but in this case it was a result of enclosing an inner Byzantine castle with an outer Crusader one. As at Kerak, the important consideration was to enclose the whole of the summit of the ridge and so deny access to enemy siege engines; along the flanks, there was only a single line of walls. Nor can castles like baronial Giblet or Templar Chastel Blanc, with their great stone keeps protected by walls around the bailey, be properly described as concentric.

This leaves a small minority of castles where the landscape and the resources available meant that a complete double circuit of walls was both practical and desirable. One of the earliest of these was the mid-twelfth-



1 Belvoir, western moat looking north



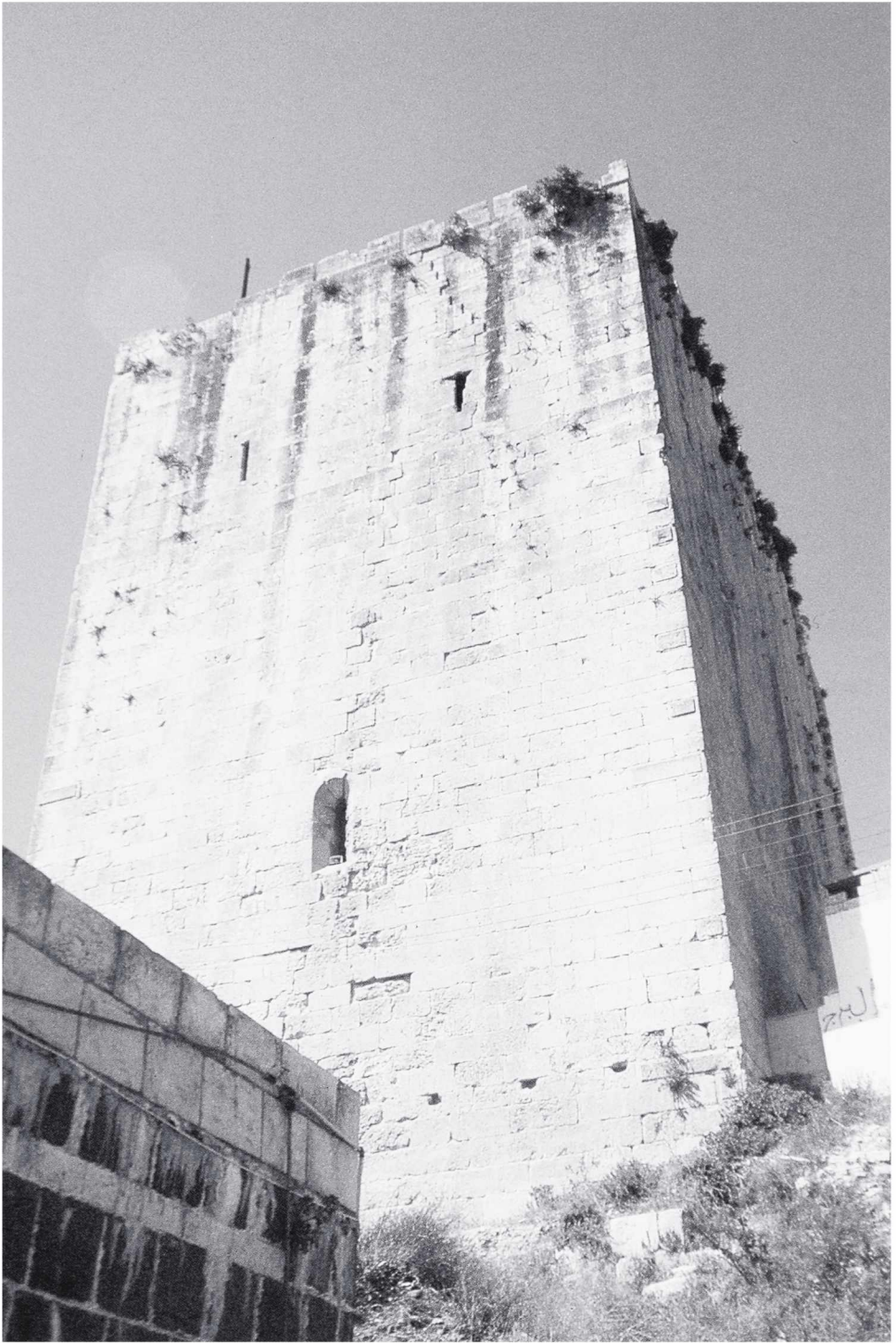
2 Bourzey, general view from the southwest



3 Saone, great trench looking north



4 Chastel Pelerin, general view from the east



5 Chastel Blanc, donjon from the east



6 Crac des Chevaliers, general view from the southwest



7 Margat, general view from the south

century Hospitaller castle at Belmont, just west of Jerusalem, where the outer circuit is polygonal. More clearly dated is another Hospitaller castle, Belvoir, built in the 1170s and destroyed in 1188. Here the outer walls were lower but more massive than the inner ones and clearly designed to bear the brunt of attack with a pronounced splayed base all round. In the thirteenth century, literary descriptions and the fragmentary archaeological evidence suggests that the castle of Saphet had two complete circuits of walls. The two clearest examples of concentric fortifications are the great Hospitaller castles of the north, Crac des Chevaliers and Margat. At Crac the outer line of defences dates from the early thirteenth-century rebuilding but they may have replaced an earlier structure. Margat has an outer line of walls enclosing the whole of the summit of the ridge and an inner citadel at one end so the 'concentric' aspect is much less apparent.

Whether they were strictly speaking concentric or not, the outer walls were of fundamental importance. At Arsuf, Saphet and Crac des Chevaliers, the fall of the outer walls led directly to the surrender of the castle which could not hold out without them.

The walls themselves had to be protected and miners and engines alike kept away from their bases. There were a number of ways of doing this, by building towers to provide flanking fire along the sides of the walls from archers within the towers, by elaborating the wall-head defences, by creating shooting galleries inside the curtain walls and by making artillery platforms on which the defenders could mount their own engines.

The earliest datable Crusader castle wall, Raymond of St Gilles' building at Tripoli, has slightly projecting towers which are little more than buttresses, but during the twelfth century the Crusaders developed a very distinctive style of boldly projecting, square tower with interior chambers and arrow slits in the sides and face. Such towers can clearly be seen at Kerak, Saone, Arima, and Rochefort (Bourzey) and it is clear that from the shelter of their walls archers could command the approaches to the line of the curtain. The projecting towers at the corners of the bailey wall at Giblet and other castrum plans had the same effect.

At the end of the twelfth century, this design was abandoned and replaced by new designs of flanking towers. There is no contemporary comment on when or why these changes are made. Circumstantial evidence suggests that they were incorporated in castles built or strengthened after the campaigns of 1187-9. Historians of military architecture have suggested that square towers have two significant disadvantages. The first is that their projecting corners were particularly vulnerable to mining. When Belek undermined the castle of Kharput in 1123, it was a tower which collapsed; at Le Chastellet in 1179, again, it was the tower which was brought down; and the castle of Trapesac fell to Saladin when one of the towers was undermined. Equally the corners

and flat faces of the towers would make an easy target for siege engines. Clearly towers to provide flanking fire for the walls were a vital part of the defences and yet they were also among the most vulnerable points. The second disadvantage of the square tower was that there was a considerable area of 'dead' ground immediately in front of the outer face, an area which could not be covered by archers firing from the curtain wall and where an enemy could begin mining operation or set up siege engines.

Two different designs emerged to cope with these difficulties. The first, which seems to have been favoured by the Templars, was to make towers oblong, with the longer sides of the rectangle attached to the curtain walls. These projected sufficiently to allow archers and artillery to cover the ground in front of the walls but not so far that they were vulnerable. Such oblong towers can be seen clearly at Chastel Pelerin (1218), at the thirteenth-century work at Tortosa and, it would seem from the fragmentary evidence, from the outer walls at Safita.

The other response was to build round towers. These had the advantage that they lacked vulnerable corners. In Roman times, Vitruvius had understood this: 'The towers', he writes, 'must be either round or polygonal. Square towers are sooner shattered by military engines, for the battering ram pounds their angles to pieces; but in the case of round towers they do no harm, being engaged, as it were, in driving wedges to their centre.'⁴² The area of dead ground in front of them was considerably reduced because it was more easily covered by archers on the walls on either side. However, round towers did have their disadvantages too. For a start, they required more skill to construct them as the stones have to be precisely shaped: it would have been very difficult to build round towers with the crude, almost boulder-like masonry which was used at Kerak. Round rooms are much less convenient than square ones for living in and when towers were used, as at Crusader Saone or Muslim Bosra, as residential quarters, square towers were preferred. At Margat they solved this problem by having square chambers in the great round donjon, while at Crac des Chevaliers the round tower in the centre of the south wall has a large rectangular accommodation block on its inner side. Round towers were also less suitable for mounting siege engines, an important consideration in the thirteenth century. It was probably these limitations which led all Muslim architects and some Crusader ones to prefer rectangular towers throughout the thirteenth century.

It is by no means clear where this use of round towers originated. It has already been shown that there was a long Armenian tradition of building round towers, of which the 1122 tower at Edessa was actually built under Frankish rule. They had also been used in the gates at Cairo only a decade before the arrival of the First Crusade in the Levant. But round donjons also appeared in western European castles before any datable Crusader examples,

the earliest of which is probably that built by Henry I at Chateau-sur-Epte c.1130–5. On the other hand there are no examples of round mural interval towers before Richard I's Château Gaillard (1197–8).

The earliest examples of round towers in Crusader building are probably to be found in five towers (including the two which flank the postern gate) on the wall of the castle at Saone overlooking the great trench, where they seem to grow out of the natural rock which is also shaped in semi-circular projections. Though smaller in diameter than thirteenth-century examples, these are clearly round towers with hollow interiors and slits for archers to aim fire along the wall. They are Crusader work (i.e. before 1188) and probably date from the early twelfth century. Deschamps⁴³ suggests that the semi-circular rock projections on which these towers stand date from Byzantine times and that the Crusaders simply imitated the plans laid down by their predecessors. Equally, Saone lies right in the north of the Crusader states, in an area of strong Armenian influence, and it may well be that there is Armenian influence here, although the masonry of which these towers were built is typically Crusader.

Thereafter, there are no further examples of Crusader round towers before the great Hospitaller building projects at Crac des Chevaliers and Margat around the beginning of the thirteenth century. Both these cases are interesting in that the castles had been built in the twelfth century with square towers but were systematically changed in the rebuilding so that almost all the towers present rounded fronts to the enemy. The builders obviously saw advantages in this. In the outer, west wall of Crac is the finest example of the systematic use of regularly spaced round towers to be found in Crusader building. Unfortunately the exact chronology of these rebuildings is uncertain (see below).

Wall-head defences were a useful addition to flanking fire from projecting towers as a means of protecting the walls from attack. The underlying principle was to put structures on the tops of the wall which would project and enable the defenders to cover the vulnerable base of the wall without exposing themselves to enemy fire. Two types of these defences were developed, wooden hoardings and stone machicolations.

Wooden hoardings were more widely used but are much less easy to study than stone machicolations since there are no surviving medieval examples. They can only be investigated from manuscript illustrations and more exactly from holes for inserting timbers frequently found around the wall heads of western European castles. The reconstructed example at Carcassonne gives a clear idea of the appearance of such structures. Evidence for the use of wooden hoardings in Crusader castles is very scarce. During the siege of Saphet in 1266, Ibn al-Furat recounts how the Franks burned the *sata'ir* on the *bashurah* (outer wall) to prevent the Muslims from storming it. The word '*sata'ir*' can mean any sort of wooden projection and could refer to

hoardings.⁴⁴ There seem to be no examples of holes in the masonry of a sort which might have supported wooden hoardings in the western manner but there are examples of stone corbels (*breteches*) which must have supported either timber or stone machicolations. Twelfth-century examples of these can be found at Saone where they survive at three places, all overlooking gates,⁴⁵ and at Burj al-Arab over the window. The same device is used at Margat, above the main gate and over the window in the great round donjon.⁴⁶ More striking is the use of these *breteches* on the four-square guard house (Burj al-Sabi) which commands the coast road below Margat and was probably built around 1200. Here they are disposed regularly all around the top of the tower at the level of the roof terrace and the defences must have stood out in front of the crenellations.

Stone machicolations are comparatively rare. There are twelfth-century examples of what Edwards calls 'slot machicolations' (and which he sees as characteristically Armenian devices)⁴⁷ over gates at Saone, Bourzey and Beaufort.⁴⁸ As the name suggests, these were open slots leading from an upper chamber down into the gate passage. The descriptions of the building of Chastel Pelerin (1218) and Saphet (1240)⁴⁹ both mention '*propugnacula*' as part of the defences of the main walls. These are distinct from the towers and the outer walls and may well be stone machicolations.

It is only at Crac des Chevaliers, however, that we can trace the development of the true machicolation. In the twelfth century large slot machicolations were constructed along the front of one of the surviving square towers of the inner bailey⁵⁰ and they may have been constructed to protect the base of the wall before the outer enceinte was built in the late twelfth or early thirteenth century. This tower also had a postern gate in one side, which was defended by a *breteche* similar to those found at Saone. This seems to be a unique survival of the twelfth-century system of defence. Later the three large slot machicolations were replaced by a gallery of machicolations sustained by corbels which ran along the head of the wall.

Further development of the machicolation can be seen on the late twelfth-/early thirteenth-century west and south walls of the outer enclosure.⁵¹ Along the south wall, and above the postern gate in the north wall mentioned above, there are (or rather were) regular spaced box machicolations, each standing on three projecting corbels and having two slots in the floor over the base of the wall and an arrow slit in the face. Each is reached independently from a covered wall walk. These have no parallel in other surviving Crusader work but are strikingly similar to early thirteenth-century Muslim work at Damascus and Aleppo, but we know they are of Frankish construction because of the masons' marks. After the Muslim conquest in 1271, the southeast corner was rebuilt and the separate box machicolations were replaced by a continuous, covered gallery of machicolations, in many ways like the *chemin de ronde* of later medieval French military architecture.

Most wall heads were defended not by machicolations but by more simple crenellations. Surviving examples of Crusader wall-head defences are comparatively rare. On the twelfth-century donjon and other towers at Saone, the roof is surrounded by a wall some 4 m high. There are arrow slits at roof level, designed to facilitate downward fire. These arrow slits are covered by flattened pointed arches which support, about 3 m above the level of the roof terrace, a wall walk, protected by simple merlons.⁵² This seems to have been the most common form of wall-head defences; the same system can be seen at Chastel Rouge (twelfth century)⁵³ and, from the thirteenth century, at Chastel Pelerin⁵⁴ and Margat. In the case of Chastel Blanc (c.1200) there is no wall walk but simple crenellations with arrow slits in the merlons.⁵⁵ Most of these examples all occur on inner fortifications where command of the base of the wall was not so vital since the outer lines of defence should have seen to that. A rather different pattern can be seen on the inner walls at Crac and Tortosa, where there are arrow slits and larger rectangular openings whose purpose is not at all clear.⁵⁶

New wall-head defences were complemented by new defences within the walls. The simple curtain wall of the twelfth century was replaced by much more careful designs and it became a complex fighting platform. The main intention was to provide direct fire outwards at or near the bottom of the wall from a sheltered position. This is apparent in the defences of the citadel at Margat where the walls either have passages with arrow slits (as in the outer western wall), or, more commonly, vaulted halls leading to arrow slits, as on the inner western and eastern fronts. The surviving fragment of the main wall at Tortosa shows that it had vaulted halls or passages behind it giving access to arrow slits at many different levels. This was not new: there are halls and galleries in the walls at both Kerak (north front) and Saone (west front) dating from the twelfth century. However, these arrangements seem to have become more systematic in the thirteenth.

Evidence for this can be found at Tortosa and Crac des Chevaliers, in both of which solid twelfth-century walls were developed to provide more opportunities for fire. In Tortosa this took the form of a gallery, plentifully supplied with loopholes, around the base of the solid twelfth-century donjon. At Crac the twelfth-century inner enclosure was surrounded on the west and south by a thirteenth-century outer wall. In part this was to push the wall out at the base so that the exterior was a steeply sloping glacis rather than a vertical wall. Between the twelfth- and thirteenth-century walls, there ran a gallery, from 1 m to 3 m in width, which gave access to numerous arrow slits. There can be no doubt that one of the reasons for this apparent duplication of wall building was to increase the fire power near ground level.

Siege engines were one of the main methods of defence as well as attack. They had been used by the Muslim defenders of Jerusalem in 1099 and the

failure of the Christians to set one up when Saladin besieged Kerak in 1183 was a major cause of their loss of morale. When he returned the next year, the defenders were much better prepared and their siege engines prevented Saladin's men approaching the trench outside the castle walls until he had built elaborate shelters for them: the delay was long enough for the main Crusaders army to relieve the siege. At Bourzey in 1188 a siege engine in the castle made life very difficult for Saladin's troops. In the thirteenth century their use became more common. When Baybars heard that the Franks at Jaffa had erected engines on the citadel 'in spite of the fact that they were at peace' he made his displeasure known.⁵⁷ The castle at Saphet had a staff of no less than 300 *balistarii* to work the siege engines. The Crusaders sometimes used them to good purpose in battle. At the siege of Beaufort in 1268, three people close to Sultan Baybars were killed by a Frankish stone shot by the defenders, though he himself was unscathed.⁵⁸ At Gibelacar in 1271, Frankish engines did considerable damage to the attackers and killed one of the Muslim commanders when he was at prayer, and the fall of Margat in 1285 was preceded by an artillery duel between the engines of the attackers and the defenders.⁵⁹

The need to provide platforms for these engines affected Crusader castle architecture considerably. The siege engines, particularly the new, counter-weight trebuchets, required strong towers with ample space at roof level. They also needed solid stone vaults to keep them up and as much height as possible to increase the range. The castle at Saphet was so designed that the engines of the defenders were invisible from outside the castle. A new style of tower building was developed and the small, flanking towers of the twelfth century were replaced by these much larger artillery platforms. It is probable that the first fortress specifically built for this new artillery was the citadel in Damascus, built by al-'Adil in the first decade of the thirteenth century (see below, pp. 181-2). Christian builders soon adopted the new techniques: the massive towers at the south end of the inner defences at Crac, the round tower and connected structures at Margat and the huge rectangular towers at Chastel Pelerin and Tortosa all show these features. The lack of them at crucial places could be disastrous. Baybars clearly saw that Crac des Chevaliers had been vulnerable because there was nowhere to mount artillery at the south end of the outer enceinte, and he built a vast square tower to fill this gap. In addition, there was the need to house and feed the large numbers of men required for the engines. Increasingly important as well was the provision of shelters within the castles, so that defenders could be protected against incoming missiles (see above, pp. 92-3).

The need to defend the castle against the two threats of mining and bombardment must have been the foremost consideration of all Crusader castle builders. They responded to the challenge with scientific ingenuity, both when they designed the fortifications originally and when they modified their

existing defences in the light of experience. Every feature has purpose and nothing happens by chance. It is this pattern of developing response to challenge which makes the architectural history of these castles so intriguing, just as the response of architects in twelfth- and thirteenth-century France to the challenge of building great churches makes the early history of Gothic architecture so satisfying.

NOBLES, TEMPLARS AND
TEUTONIC KNIGHTS IN THE
THIRTEENTH CENTURY



THE defeat at Hattin and the subsequent fall of so many castles to Saladin had a traumatic effect on Crusader castle architects. The castles which were founded or remodelled in the thirteenth century differed from their twelfth-century predecessors in ownership, distribution and design.

By this time very few castles remained in the hands of the lay nobility except in the coastal cities where some families like the lords of Sidon and Caesarea and the Ibelins in Beirut managed to maintain at least a shadow of their former status. None of their buildings survives from this period and the thirteenth-century fortifications which do survive at Sidon and Caesarea were not built by the lords. We do, however, have one record from this time which sheds a rather surprising light on the life-style of these nobles. In 1212 the aristocratic German traveller Wilbrand of Oldenburg passed through Beirut and has left a description of the castle of John of Ibelin.¹ One tower, newly built since the reconquest of the city by the Crusaders in 1197, had a chamber overlooking the sea on one side and gardens on the other, which was luxuriously decorated with marble panels like lightly rippling water on the floor and painted clouds 'which seemed to move' on the ceiling. In the middle there was a richly decorated tank with a fountain shaped like a dragon whose waters cooled the air and beside which, the no-doubt travel-weary writer says he would 'willingly sit for all his days'. The whole passage gives an idea of the luxury which could be found in some Crusader castles, an aspect of their architecture whose physical traces have almost entirely disappeared.

Outside the coastal towns, the castles of the Kingdom of Jerusalem show a marked discontinuity between the twelfth and thirteenth centuries. Many were lost, never to be retaken. The mighty fortresses of Oultrejourdain were



Plate 43 Sidon, sea castle, thirteenth-century: general view from southeast.

gone for ever, Belvoir was not recovered, the castles built in Fulk's reign around Ascalon were left in ruins; never again would Frankish knights crouch in the cave at al-Habis to survey the northern plains. Frankish settlement was now confined almost exclusively to the coastal plains and, while the cities were refortified, few independent castles were constructed. Even when Jerusalem was reoccupied by Frederick II from 1228, little attempt seems to have been made to strengthen its defences and no castles were constructed in the Judaeian hills.

The castles of the coastal towns were certainly strengthened during the thirteenth century but only at Sidon, centre of one of the most important lordships in the Kingdom of Jerusalem, are there still significant remains.² In the twelfth century the castle of Sidon had stood, like Giblett, at the apex of the land walls on the site of the ancient acropolis. The town fell easily to Saladin's troops on 29 July 1187 and ten years later a party of Crusaders found it 'sine habitatore et rebus'. The town seems gradually to have been repopulated and 2,000 Christians were massacred in a surprise Muslim attack in June 1253. When St Louis, who was then engaged on the refortification of Jaffa, heard the news, he hurried to Sidon and, after burying the putrid corpses of the victims, set about rebuilding the fortifications. The site of the castle is known but, like Toron, it was almost completely rebuilt by the Amir Fakhr al-Din in the seventeenth century and virtually none of the Crusader work survives.

A second castle was built on a reef which protects the harbour some 100 m from the shore (plate 43). There seems to have been no building on the site in the twelfth century but in 1227–8 a party of French, English and Spanish pilgrims awaiting the arrival of Frederick II on Crusade began construction. The contemporary *L'estoire de Eracles* explains:

The pilgrims who were not at Acre, not wanting to be idle, took counsel and agreed that they should go to Saete [Sidon] to fortify the city and the castle. When they arrived, they realised that it would be too much work to undertake the fortification of the town and castle. They saw an island in the sea beyond the harbour and they knew that they could make a better and more secure fortification there in a short time. They set to work and built two towers, one large and the other medium, and a length of wall between the two towers. They worked at this between St Martin's Day [11 November 1227] and the middle of Lent [2 March 1228].

This new island castle served as a refuge for the garrison in 1253 when it was held by Simon de Montceliart, chief of Louis IX's crossbowmen, and in 1260 when the town was sacked by the Mongols, provoked by Julien of Sidon's foolish attack on their camp. After 1260, Sidon, along with Julien's other properties at Beaufort and the Cave de Tyron passed to the Templars. They continued to hold it until 1291. After the fall of Acre on 18 May, some of them escaped to Sidon where they hoped to hold out in the sea castle and it was here that they elected a new master, Thibaut Gaudin, to replace William of Beaujeu who had been killed at Acre. It soon became clear, however, that assistance was not going to arrive and the Mamluke sultan began the construction of the causeway to the island. Finally, at dead of night on the 13 July, the Templars took ship and, abandoning their castles, set sail for Cyprus.

The archaeology of the castle is not at all clear and the plans published by Rey, Deschamps and Müller-Wiener are all significantly different. The site is not large and construction is on a fairly small scale. The latest and most detailed discussion (fig. 15), by Kalayan, distinguishes no less than four stages, based on different types of masonry work but bearing in mind that the original builders hailed from at least three different countries it would not be surprising if different kinds of stone dressing were used at the same time. It is most likely that we should see the initial work as the square towers A–B and C, which were later strengthened by Simon de Montceliart who enveloped both A and C in more massive constructions. The final phase probably represents Templar work. This consisted of enclosing the square towers with a vaulted shooting-gallery well provided with arrow slits, very much as they did in the donjon at Tortosa. It was probably the Templars as well who were responsible for the vaulted Gothic hall at the seaward side of the main fortifications. It is noticeable that at Sidon, as at Chastel Perlerin, the fortifications

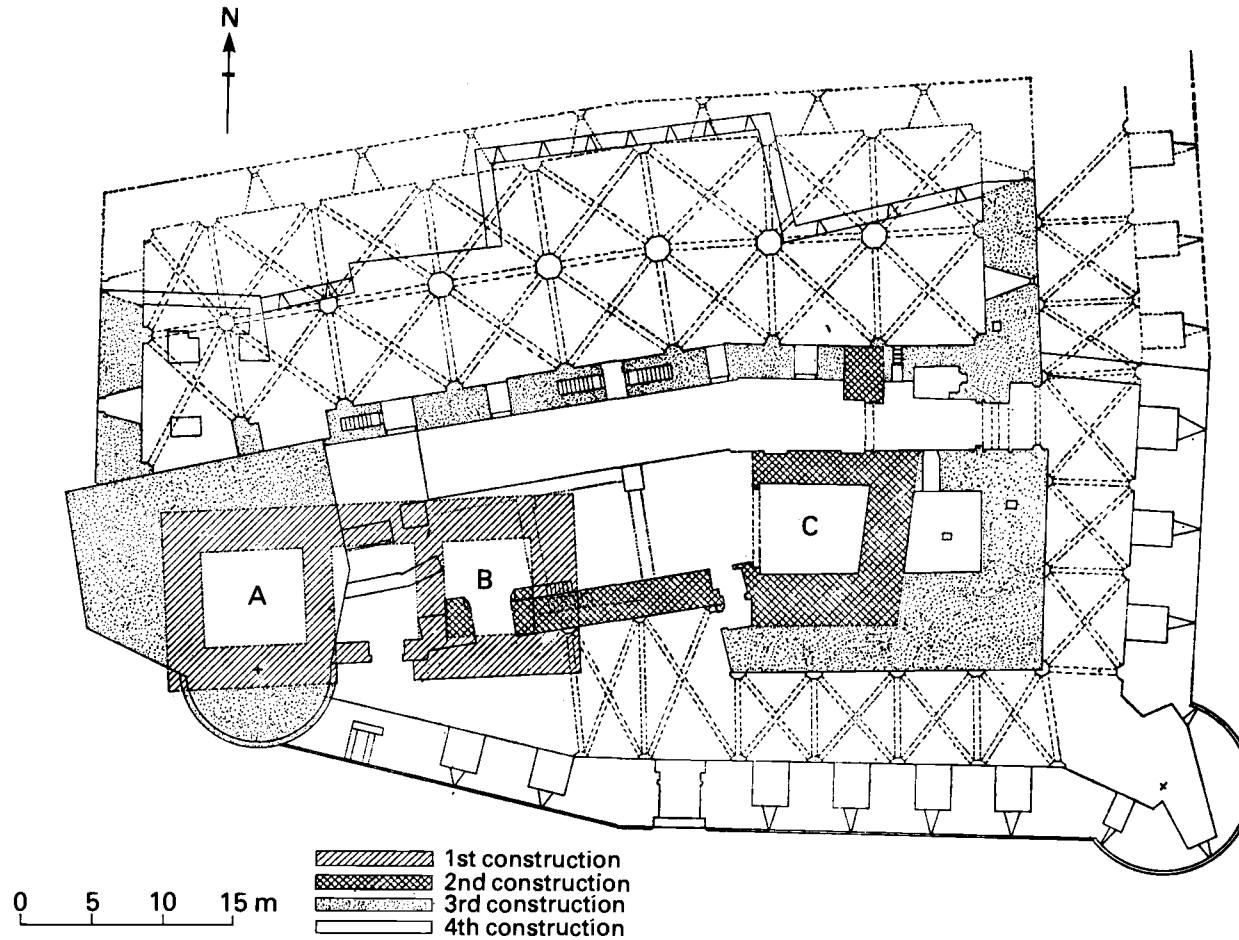


Fig. 15 Sidon, sea castle: plan. The open sea lies to the north of the castle, while the main fortifications face the harbour and the bridge to the south. The plan shows how the original square towers were extended to provide more shooting-galleries and, on the north side, a hall.

are directed against attack from the land whereas the sea side is much less strongly defended.

Outside the coastal towns, new work of the thirteenth century was confined to the north of the old Kingdom of Jerusalem, to Chastel Pelerin on the coast, Montfort, Judin and Saphet in the hills of Galilee, and Beaufort in the south of Lebanon. Saphet and Beaufort were only recovered by the Franks in 1240 and were lost again in 1266 and 1268 respectively. All the castles which were built belonged to the Military Orders. Chastel Pelerin, Beaufort and Saphet to the Templars, Montfort to the Teutonic Knights; none was built by laymen or by the Hospitallers who seem to have devoted their energies to the defence of the northern Crusader enclaves (apart from the development of their headquarters in Acre). Only a small proportion of the Templar castles which had existed in the twelfth century were refortified in the thirteenth. Le Toron des Chevaliers (Latrun) and La Fève in the Vale of Jezreel, for example, never seem to have been rebuilt. The rectangular enclosure plan, which had been commonly used by the Military Orders in the twelfth-century kingdom, was also abandoned and all castles were built on sites defended by steeply sloping ground or by the sea. It is apparent too that all the large-scale new constructions in the Kingdom of Jerusalem (Chastel Pelerin, Sidon and Saphet) were undertaken on the initiative of pilgrims from outside the kingdom. Only in Tripoli and Antioch were the Templars, like the Hospitallers, able to call on sufficient revenues from land, booty and tribute for large construction projects.

Templar work of the early thirteenth century was on a massive scale. As a result of accidents of survival, the great Hospitaller works at Crac des Chevaliers and Margat now look vastly more impressive than anything constructed by the Templars but examination of the remains at Chastel Pelerin and Tortosa and the descriptions of Saphet make it clear that their work was of similarly huge proportions. There were also marked differences in style: in contrast to the Hospitallers, but like their Muslim contemporaries, the Templars consistently preferred rectangular to round towers.

Chastel Pelerin (1218) was the earliest of these projects.³ Unlike most twelfth-century castles, we know a good deal about the circumstances of its construction from the contemporary account in the *Historia Damiatina* of Oliver Scholasticus. The immediate stimulus was the fortification of Mount Tabor by the Muslims which posed a threat to all the Christian communities on the coast. The seaside road was left very exposed, and the old tower of Le Destroit which served as a place of refuge on this stretch was no longer adequate (plate 44). The initiative was taken by a visiting lord from Flanders, Gautier d'Avesnes, who gathered knights from the Templars and the Teutonic Order and a large number of pilgrims. They decided to fortify a rock spit on the coast between Caesarea and Acre which could provide security and a good anchorage.



Plate 44 Chastel Pelerin (Athlit): view from the old Templar tower at Le Destroit which the new castle replaced. The coast road ran where the railway and sheds are in the foreground.

The work began in February with the digging of a ditch across the promontory which was completed by Easter (15 April), the whole enterprise taking only six weeks. The great inner wall with its two massive oblong bastions was completed in the next six months.⁴ The plentiful supply of volunteer labour from the pilgrims must have helped speed the process. We are also told that there was an ancient wall on the site, which we now know to have been Phoenician, and the builders were able to re-use much of the ancient masonry, which accounts for the very large size of some of the blocks, much bigger than those normally found in Crusader work. Equally encouraging was the discovery of a horde of ancient coins of a sort unknown to the builders which was soon put to good use buying supplies. After its completion the castle was entrusted to the Templars who held it as long as it remained in Crusader hands, becoming their most important base in the Kingdom of Jerusalem.

The main defensive work consists of a mighty rampart across the landward end of the spit (fig. 16). There is a ditch with counterscarp, then an outer wall, 6 m thick and about 16 m high (the outer west wall at Crac des Chevaliers is about 9 m high). This wall was crowned by a covered chemin de ronde provided with numerous casemates and arrow slits. Above this there were crenellations on the wall head but there is no trace of machicolations or projecting wall-head defences. Instead the dead ground at the foot of the wall was covered by three projecting square towers. The central and southern towers each had two small gates, one in each re-entrant angle, defended by portcullises within and simple, two-corbel machicolations over. Behind this outer wall there was a thin bailey, enclosed at the north and south ends by walls with

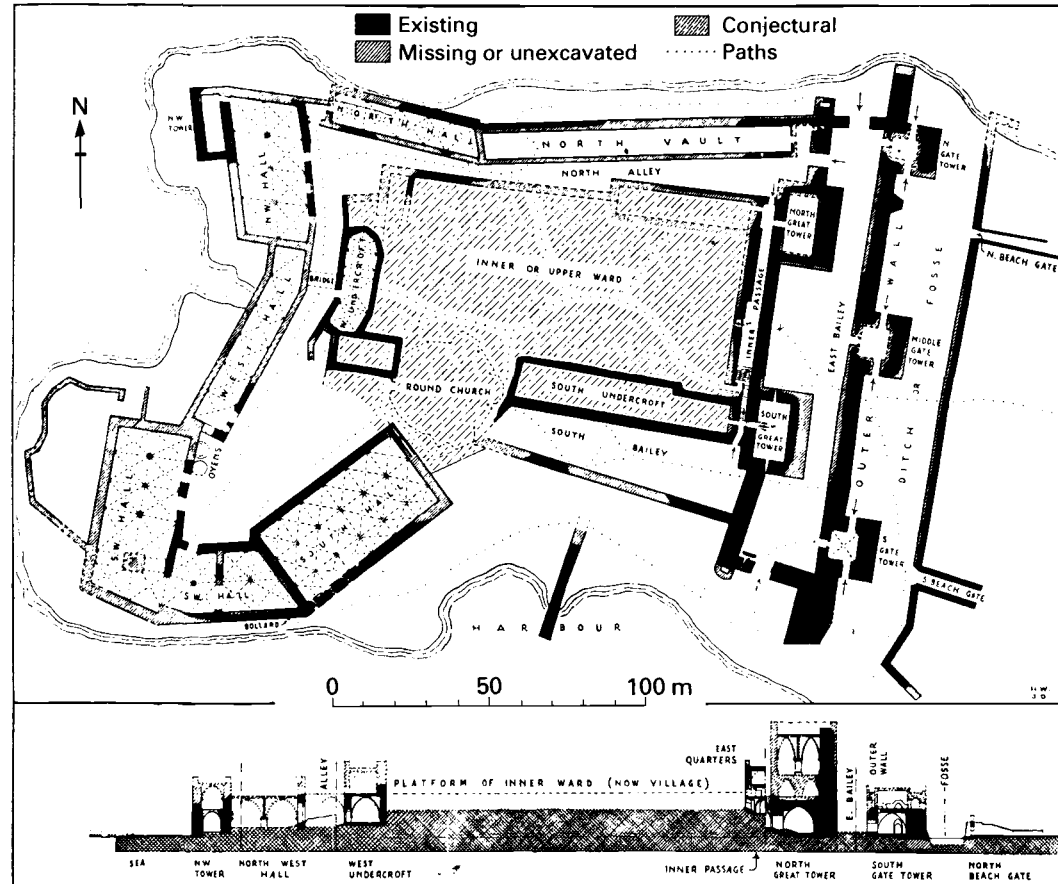


Fig. 16 Chastel Pelerin: plan and section.

covered corridors in them so that the outer wall could be reached from the main castle without exposing the defenders to enemy fire. Behind this bailey stood the inner wall. None of this survives to full height but it must have overlooked the outer wall. This was strengthened by two great towers, placed so that they commanded the curtain walls between the towers in front. Enough of one of these towers survives to show that it had three floors, of which the top was a lofty hall with fine ribbed vaults, and stood to a height of more than 34 m, only slightly lower than the highest towers of the inner enceinte at Crac. These towers were connected by internal passages 'so wonderfully contrived' as Jacques de Vitry wrote, 'that armed horsemen can go up and down the steps'.

Behind these mighty walls, the interior of the peninsula was occupied by a number of extensive crypts and halls, mostly very ruinous now, which must have provided accommodation of the scale and elegance found in the Hospitallers' work at Crac des Chevaliers in the same period. The main hall (*palatio*) was used to feed 4,000 men daily in the siege of 1220. Naturally, since the castle was occupied by a Military Order, there was a fine chapel of almost octagonal plan, whose vaulted roof was supported by a slender central column. In both the strength of its defences and the extent of its living quarters, Chastel Pelerin was among the most impressive of thirteenth-century Crusader works.

Outside the castle proper a small town was founded with a church and baths and enclosed by an unimpressive wall. In 1220 the castle, defended by no less than 4,000 combatants, faced a major assault by al-Malik al-Mu'azzam who brought with him seven siege engines: his artillery could not even reach the great towers of the inner enceinte, one engine was destroyed by the artillery of the defenders and the attack was a fiasco. He withdrew after a month and the hastily constructed castle had proved its worth. As long as it could be supplied by sea and was adequately garrisoned it was virtually impregnable: even the mighty Baybars, conqueror of Crac des Chevaliers, left it alone when he sacked the town in 1265. It was never taken by assault and it was not until after the fall of Acre in 1291 that the much reduced garrison was finally forced to abandon it. Apart from some slighting of the defences immediately after the Muslim occupation, the castle seems to have remained largely intact until Ibrahim Pasha used it as a quarry to rebuild the walls of Acre in 1838, since when the fabric has deteriorated rapidly.

The Templars played a central role in the defence of inland Galilee as well. In 1240 a Crusade of French barons led by Thibault IV of Champagne made a treaty with the Sultan Isma'il of Damascus whereby Beaufort, which had been held by the Muslims since its capture by Saladin in 1190, was returned to the Crusaders. The garrison refused to hand it over and Isma'il was put in the embarrassing position of having to undertake a full-scale siege so that he

could enforce the terms of the treaty. The castle was then returned to the lords of Sidon to whom it had belonged in the twelfth century. It was one of them, the courageous but reckless Julien, whose stupidity caused a fatal breach between the Crusaders and their Mongol allies, who was obliged to sell Beaufort and Sidon to the Templars in 1260.⁵ It marked the end of an era: Beaufort was the last rural castle of any importance in the Levant to remain in baronial hands. Having acquired this outpost the Templars set about modifying it. The castle itself was still strong and the Muslims had more than made good the damage done in 1190. The Knights added a vaulted hall, so characteristic of the architecture of the Military Orders, to the inner bailey. They also built an outer work on the plateau to the south of the castle, where Saladin had set up his engines and which they rightly saw as the vulnerable angle. Unhappily for them, these new defences proved their undoing. When Baybars besieged the castle in 1268, they were forced to abandon their new work which the sultan then used as a base for his artillery. Finally on the 15 April the 480 men defending the castle, of whom twenty-four were knights, were forced to surrender; their women and children were allowed to escape to Tyre but they themselves were handed over to the soldiers of the besieging army.

The Templars also took over the castle at Saphet. Saphet is an interesting case in that we know a good deal about it from written sources, indeed the anonymous tract called *De Constructione Castri Saphet* is the fullest account we have of the building of any castle, but the physical remains are very scanty. According to late medieval travellers, the fortress was one of the most magnificent constructed by the Crusaders and was certainly one of the great glories of the Templars. They had built a fortress on the site in the twelfth century which was taken by Saladin in 1188. It remained in Muslim hands, like Beaufort, until 1240 when it was restored to the Templars. They do not seem to have felt able to undertake any restorations on their own initiative but, as at Chastel Pelerin, they were prodded into action by a visiting pilgrim from the west, in this case, Benoît d'Alignan, Bishop of Marseilles, who persuaded the Master, Armand de Périgord that the work should be undertaken. With the use of Arab prisoners as forced labour, the castle is said to have been completed in three years. Despite its strength, it fell to Baybars in 1266, two years before Beaufort. After a failure to take the citadel by force, Baybars tricked the Templars into surrendering in return for being allowed to retire to Acre but they were led out and executed: according to western sources, 150 Templars, 767 other fighters and two friars were killed. The Syrian Christians seem to have been spared.⁶

The castle survived and was used as a local centre of government until a disastrous earthquake in 1837 left it a pile of shapeless ruins. The evidence has recently been re-examined by Pringle using old travellers' accounts and the

plan published by Conder and Kitchener when the site was more open than it is today. The inner enceinte, according to the *De Constructione*, was no less than 44 m high with seven, probably rectangular towers, which rose another 4 m above that. Outside this there was a ditch and then an outer wall, 22 m high, again strengthened by towers, although in this case they may have been round. This outer wall was provided with casemates so that the defenders could fire missiles without being seen and it was connected to the inner bailey by underground passages. The *De Constructione* does not mention a donjon. It seems that a great round tower was built on the summit of the hill by Baybars and this may have replaced or incorporated a Templar chapel. All these features can be paralleled in other, surviving Templar work, although the use of round towers is unusual, and it is clear that the castle was constructed on an immense scale.

The Teutonic Knights were comparative newcomers to the Kingdom of Jerusalem in the thirteenth century. The German hospital seems to have become militarised in about 1198 when German Crusaders returning home wanted to establish a permanent base in the Levant. In 1226 they acquired a substantial lordship in the hills of Galilee some 16 km northeast of Acre. The arrival of a sizeable contingent of German pilgrims in 1227 and the Emperor Frederick II in 1228 boosted their workforce and their funds. The original centre of the lordship had been at Chastiau dou Rei, a twelfth-century enclosure. The knights, however, seem to have decided that this site was too low lying and exposed and they sought a situation with more natural defences. It was probably in 1227 that work began on the castle which was to be known as Montfort, German pilgrims working on the site while the French, English and Spanish were working at Sidon. In 1228 Bohemond IV of Antioch Tripoli agreed to contribute 100 bezants a year to the construction and in 1229 the Master, Hermann of Salza, wrote to Gregory IX for financial support for their 'castrum novum'. By the 1240s, the castle was functioning as an administrative centre for the Knights but its prosperity was short lived. It fended off a Mamluke attack in 1266 but the lands around were so ravaged that in July 1270 the Hospitallers lent the Teutonic Knights some lands to sow grain on. In June 1271 Baybars himself led the attack on the castle, on the 11th the Muslims took the castletown and the next day breached the outer walls, and the Knights were obliged to retreat to the keep from which they negotiated their surrender. Led by their Master, Johan von Sachsen, they were allowed to retire to Acre.

Compared with Saphet or Crac des Chevaliers, the castle was built on a modest scale. It lies along the crest of a ridge (fig. 17). At the east end, where the ridge joins the hills, it was defended by a rock-cut ditch and a D-shaped keep on top of a cistern. To the west, there are the remains of a long undercroft which probably supported a hall and a chapel; fragments of stained glass

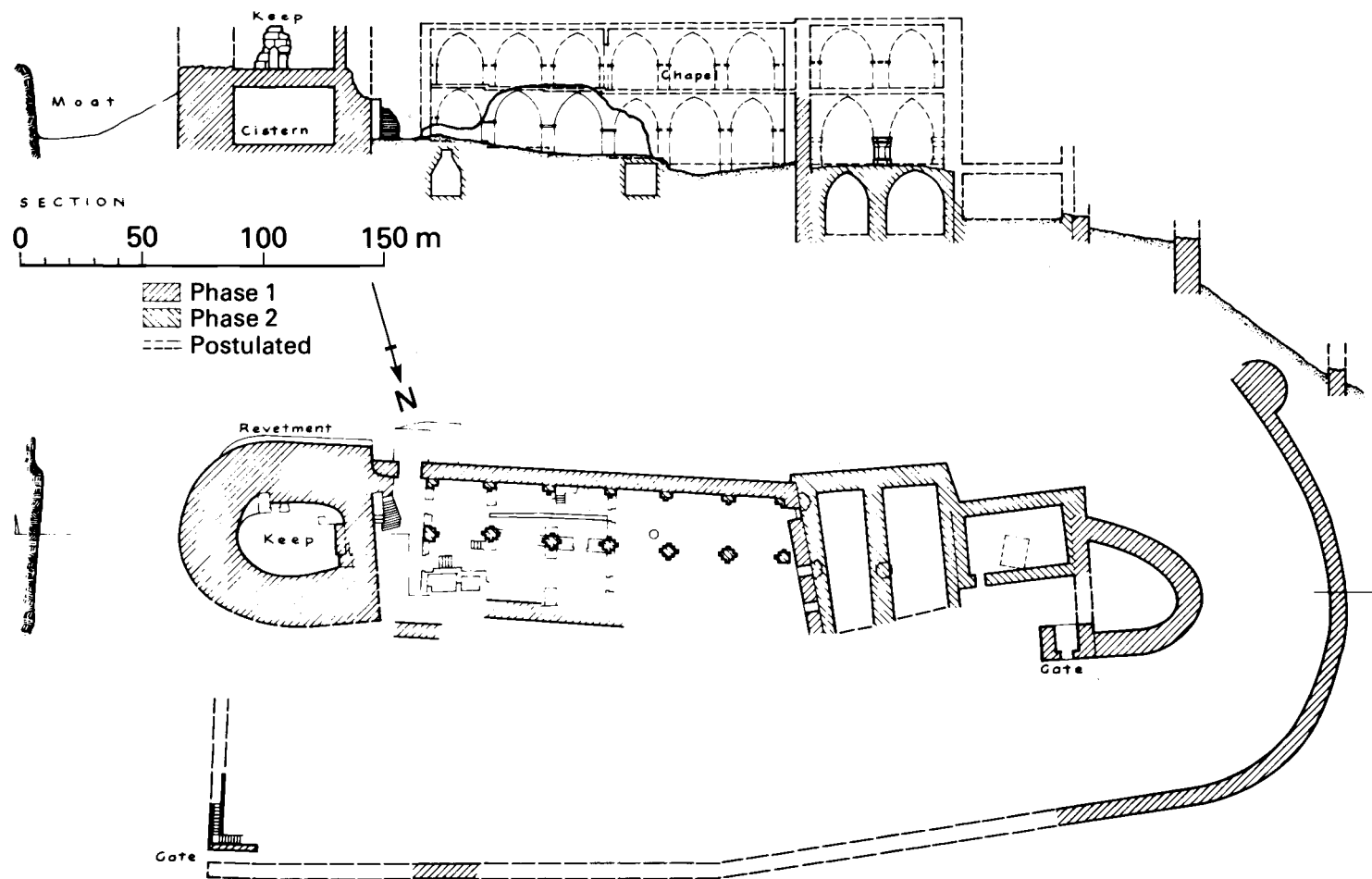


Fig. 17 Montfort: plan and section.



Plate 45 Judin: view from the highest Crusader tower looking west along the ridge, with the wooded hills of Galilee in the foreground and the plains of Acre in the distance.

were found here. At the west end, where the ground fell away, there was another undercroft of two bays which must have supported a chamber above. This lightly defended structure was enclosed on the north and west sides by a wall some 30 m down the slope. By the river which ran along the north edge of the ridge there was a mill, which was converted into an elegant guest house in the mid-thirteenth century.

The Order constructed a second castle about 7 km to the south at Judin. Here again, they chose a rocky, ridge-top site (plate 45). The remains of the castle were substantially rebuilt in Ottoman times but recent work has shown that the castle of the Knights consisted of two square towers some 20 m apart, enclosed in a curtain wall running along the edge of the ridge. Between the towers there was a courtyard which may have contained more buildings. Circumstantial evidence suggests that the whole structure dates from the period of occupation by the Teutonic Knights after the 1220s.

Both Montfort and Judin seem to owe more to German traditions of military architecture than Crusader practice. The free-standing keep at Montfort strongly resembles a German *Bergfried* while the two towers enclosed by a curtain wall at Judin are very reminiscent of contemporary German castles like Munzenburg. None of the innovations in planning and defence we see in Templar and Hospitaller building of the thirteenth century seem to be found

in either building. The choice of sites is equally striking. Chastiau dou Rei lies in a village overlooking an open valley surrounded by fields and orchards, a very productive area. The Teutonic Knights seem to have abandoned this for sites which are more remote, inaccessible, and in the midst of rough and rocky forest land. Perhaps this is a sign that in the thirteenth century, even in an area so close to Acre (Judin is only about 16 km from the city which can be seen from the tops of its towers), defence had become more important than economic opportunities when it came to siting castles. In the event, neither Montfort nor Judin proved strong enough to withstand the assaults of Mamluke artillery for very long.⁷

TRIPOLI, ANTIOCH AND THE NORTH

There was considerably more continuity between twelfth- and thirteenth-century castles in the northern Crusader states than there was in the old Kingdom of Jerusalem. Saladin's reconquest of 1188 had been less complete here and Military Orders remained in possession of some of their main strongholds, the Templars at Safita and Tortosa, the Hospitallers at Margat and Crac des Chevaliers throughout. In the thirteenth century, increasingly close, if sometimes strained, relations with the Armenian Kingdom of Cilicia meant that the Orders expanded their influence into areas they had not entered in the twelfth century. In other ways, however, trends in the north mirrored those further south. Apart from coastal towns, like Nephin and Giblet, the Patriarch of Antioch's castle at Cursat and of course the capitals at Antioch and Tripoli, baronial castles had virtually disappeared by the thirteenth century and castle building was almost entirely in the hands of the Military Orders.

The Templars' main base in the north was at Tortosa (fig. 18),⁸ a small town on the Syrian coast which they had probably acquired in the 1150s and which they proceeded to strengthen by building a massive castle. The pleasant little city is built on a flat site, offering no natural defensive features, and it still boasts the most complete surviving twelfth-century Crusader cathedral, a work of great beauty and restrained dignity. At first glance little remains of the castle which was the headquarters of the Templars but closer examination shows that substantial sections of the fortifications have survived, embedded in the structure of houses of the town. As at Cluny, where the surviving fragments of the great abbey church provide enough information for a convincing reconstruction of the vanished whole, so at Tortosa there is enough left to rebuild the castle in the mind's eye.

The chronology of the military architecture is not entirely clear. Accounts of the attack by Saladin in 1188 when the town fell but the Templars held out in the donjon make it clear that it was already a strong fortress. Saladin laid

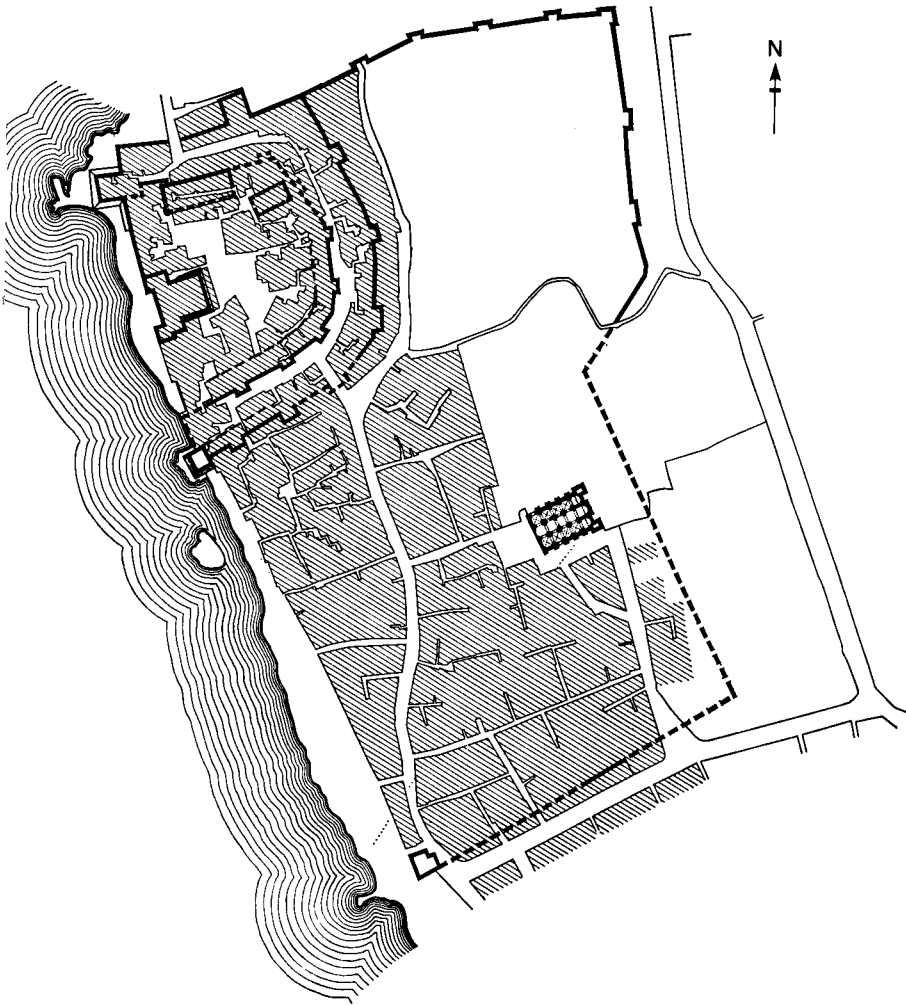


Fig. 18 Tortosa: plan of castle and city. The castle lies at the northwest of the city walls and the cathedral can be noted centre right.

waste the town outside the castle and in 1202 Tortosa was struck by the same earthquake which inflicted such damage at Crac des Chevaliers and Chastel Blanc. In 1212 Wilbrand of Oldenburg passed through on his way from Beirut to Antioch: 'It is a small city', he wrote, 'not much fortified and situated by the sea. At the centre it has a very strong castle with an excellent wall with eleven towers as if crowned with eleven precious stones . . . this castle is very well guarded by the Templars since it belongs to them.' This suggests that the



Plate 46 Tortosa (Tartus), probably thirteenth-century: eastern side of outer enceinte. The large rectangular blocks on the bottom four courses of the towers and curtain walls are Crusader work. Note the rectangular towers, the ditch and the traces of the counterscarp visible at the extreme right.

castle had been rebuilt between 1202 and 1212 and most of the surviving fabric probably dates from this rebuilding. The castle thus strengthened remained in Templar hands to the very end of the Crusader era and was not finally surrendered to the Mamlukes until 3 August 1291, two months after the fall of Acre itself.

The castle stood at the northwest corner of the city wall with direct access both to open country to the north and to the sea, which then came right up to its western flank where there is now a new road. Coming from the city, the visitor was confronted by a ditch and then the outer enceinte defended by projecting oblong towers (plate 46) of considerable size (about 15 m long as opposed to the 20 m of the towers of the outer walls at Chastel Pelerin). Within this there was another ditch and then the inner line of walls whose oblong towers commanded the outer circuit completely (fig. 19). One small section of the inner walls still survives to its full original height, which is no less than 25.5 m (higher, Braune notes, than the great round tower at Margat). The wall is constructed, like all the other fortifications at Tortosa, of finely cut bossed masonry. The inner side of this fragment (plate 47) shows signs of vaulted chambers which would have provided both shooting galleries and firing platform. As in the inner enceinte at Crac, the upper defences are provided with rectangular openings, perhaps for siege engines, as well as arrow slits.

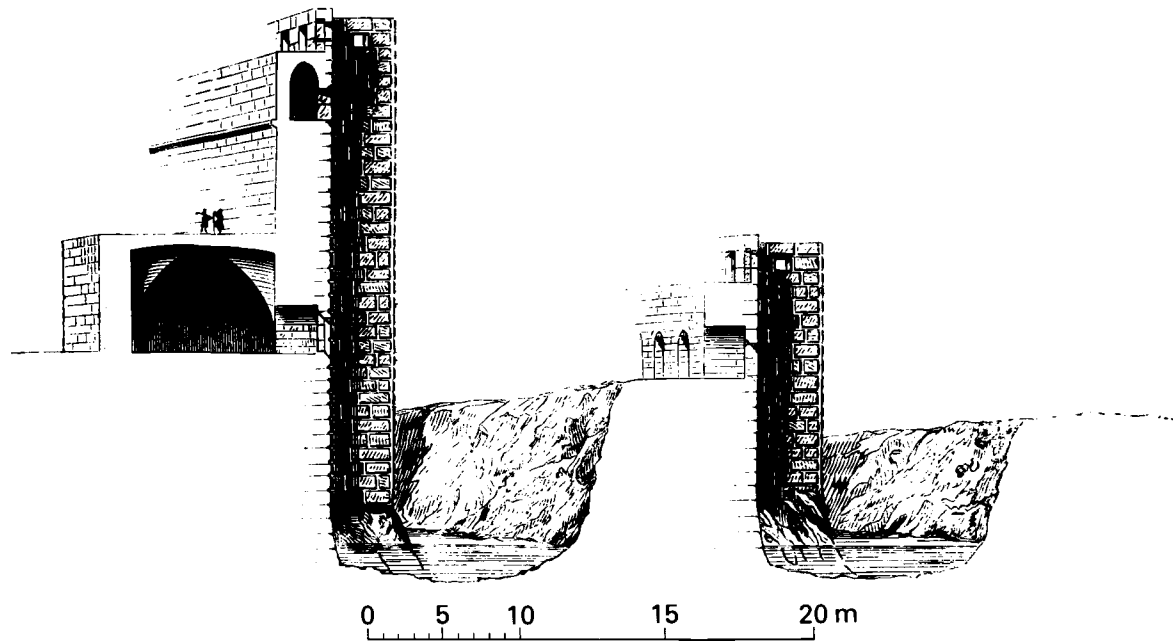


Fig. 19 Tortosa: section of inner and outer castle walls.

CRUSADER CASTLES

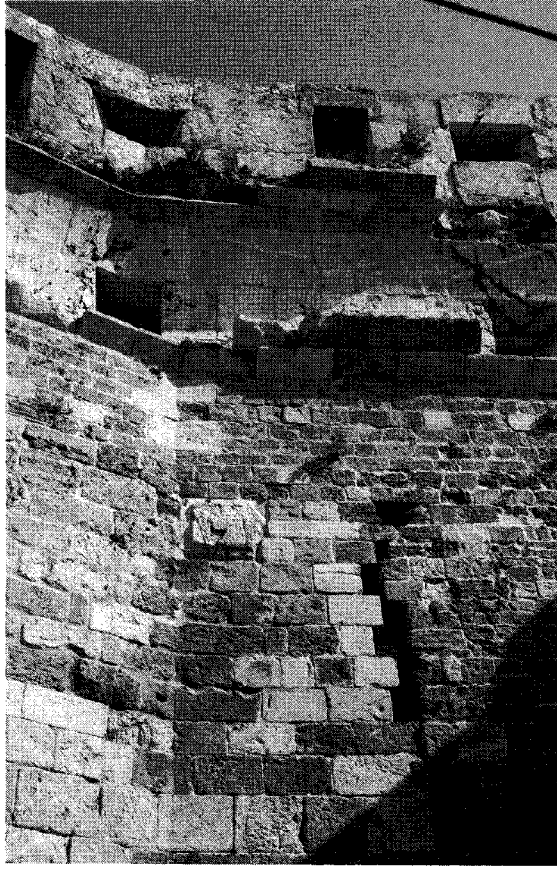


Plate 47 Tortosa: surviving fragment of inner wall seen from interior (west) side. At 25m in height, this was as large a fortification as any built by the Crusaders. Note the traces of wall walks at the upper level giving access to arrows slits and rectangular openings.

Inside this inner enceinte was a bailey much of which is still the square of the modern town. Around this were arranged the main conventual buildings. These included a chapel of which two bays with fine Gothic ribbed vaulting still survive, though now only covering a squalid yard (plate 48), and a rectangular chapter-house on an undercroft; here again traces of fine vaulting can be distinguished. Along the sea side there was another hall with a central row of pillars. Altogether the conventual buildings clearly reflected the wealth of the Order and the importance they attached to Tortosa.

At the core of the castle lay the donjon which now only survives to first-floor level (plate 49). The original donjon seems to have been a typical piece of twelfth-century Crusader work, square, with the basement divided into two rectangular chambers. This was perhaps the donjon which Saladin failed to

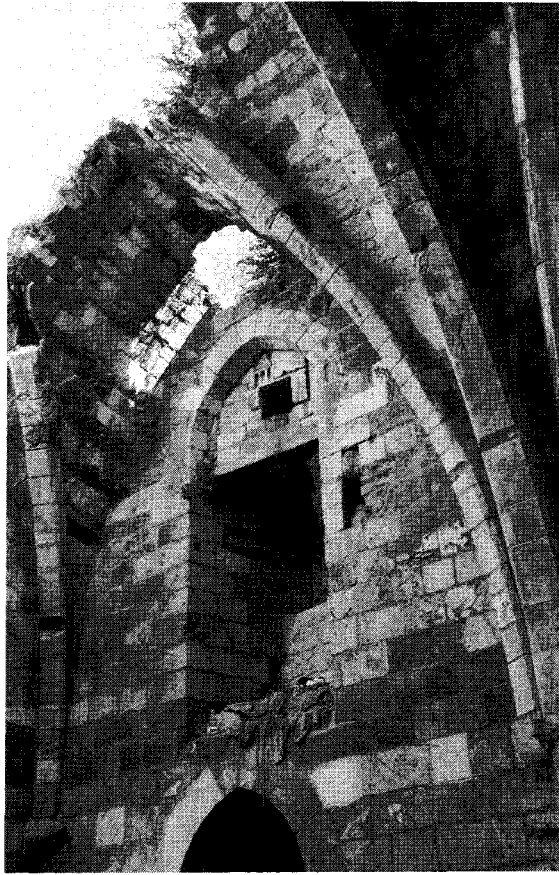


Plate 48 Tortosa: interior of chapel, south wall. Compare the squared ribs of the vault with those of the Templar hall at Chastel Blanc (plate 51).

take in 1188. Later it was strengthened to add shooting galleries at ground level by surrounding it with a vaulted passage provided with numerous arrow slits. Further provision for flanking fire was made with the addition of two oblong towers where the donjon met the sea-wall of the fortress. The changes of design here are a good example of the modification of a plain twelfth-century donjon to cope with the more active defensive techniques required in the thirteenth. We know nothing of the circumstances of the construction of this great work but there are striking similarities with the much better documented Templar work at Chastel Pelerin. These include the site with direct access to the sea, cut off from the land by two ditches and two lines of walls, the use of very large square-cut masonry, the distinctive oblong towers projecting only a short distance from the walls (in contrast to the almost square, boldly projecting towers we find in twelfth-century work like Saone or the

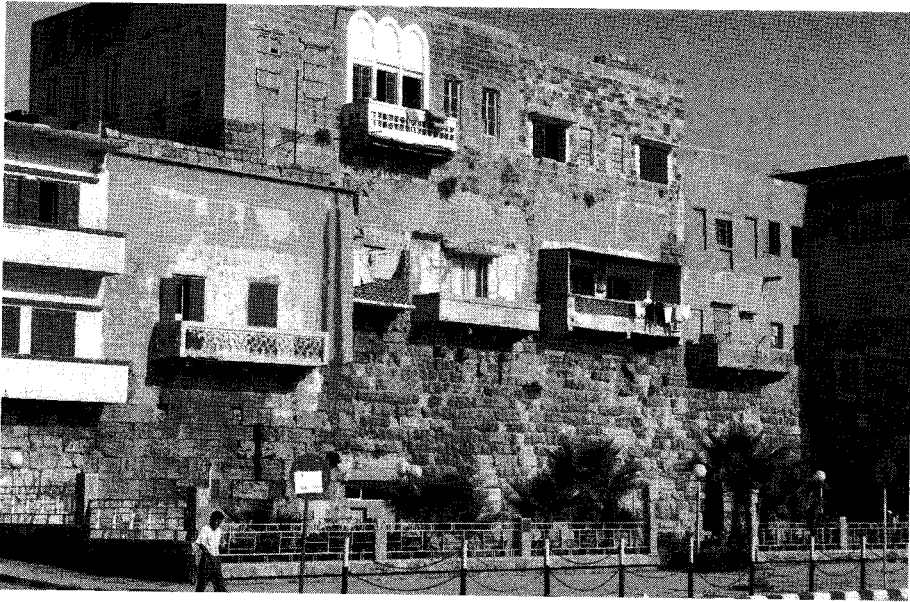


Plate 49 Tortosa: donjon from the sea (west) side. Originally the sea came up to the foot of the castle walls. The wall in the centre is the side of the first donjon, probably twelfth-century. The two projecting wings visible on the right and left were added later to provide additional flanking fire.

round towers beloved by the Hospitallers) and the way in which the towers of the inner enceinte are placed between the towers of the outer wall to command them completely. The vaulted hall in the interior also has parallels with Templar work in Chastel Pelerin and Beaufort. These distinctive features seem to add up to a Templar style with its own characteristics and its strength is shown by the fact that, like Chastel Pelerin, it was never taken by the Muslims but only abandoned by the Templars after the fall of Acre in 1291.

The other major Templar building in the county of Tripoli was Chastel Blanc (Safita).⁹ Even today the great, gaunt tower of the Templars dominates the pretty little Syrian hill town which the locals call Burj Safita, the tower of Safita (plate 50). The castle belonged to the County of Tripoli and, like nearby Arima, was probably handed over to the Templars in about 1171 after it had been sacked by Nur al-Din and then damaged by an earthquake. Saladin did not feel strong enough to attack the castle in 1188 but in 1202 the tower was described as 'prostrata' by the earthquake. It is probable that the building in its present form dates either from the 1170s or from after 1202, and it is said, by an Arab source, to have been strengthened by St Louis during his stay in the Crusader states. In 1271 Baybars began a systematic reduction of the fortifications of the County of Tripoli; the 700-strong garrison of Chastel Blanc

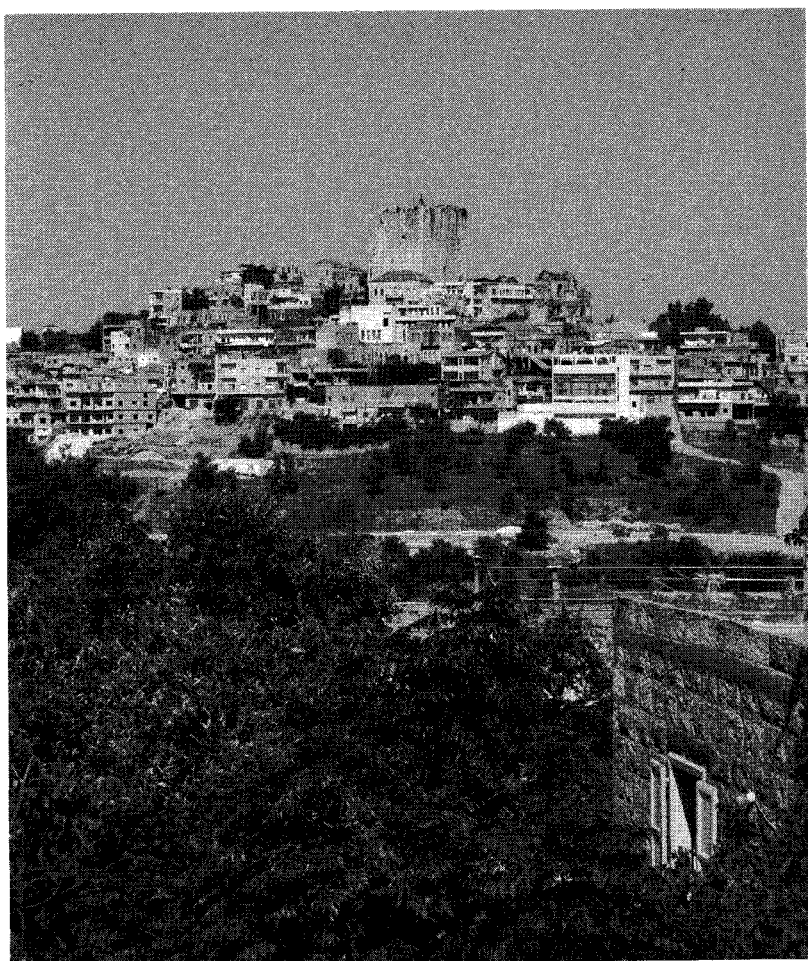


Plate 50 Chastel Blanc (Safita), late twelfth- or early thirteenth-century: general view from southeast. The massive donjon dominates the village. The surviving wall of the hall can be seen to its right.

were determined to resist him but the Master of the Temple in Tortosa ordered them to surrender and they left in exchange for their lives.

The appearance of the castle today is slightly misleading as it looks like an isolated tower in the middle of the town. In Crusader times there were two enceintes, an oval, outer one about 165×100 m and an inner which was probably rectangular. The outer one was defended by at least two typically Templar oblong towers and contained a variety of vaulted chambers, including a large hall building on three storeys (plate 51). The surviving springing of the arches shows that this had fine Gothic vaulting, similar to that found in the chapel and chapter-house at Tortosa. The donjon (plate 52), however,

CRUSADER CASTLES

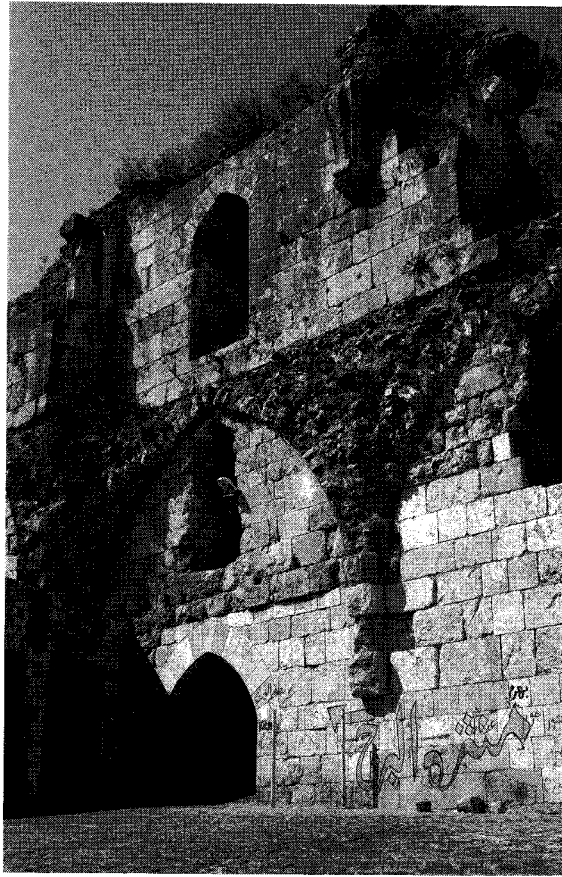


Plate 51 Chastel Blanc: wall of hall from east. Note the gate leading into the bailey, the high ground-floor undercroft with groin vaults and the springings of the ribbed vaults of the upper floor. This must have been a magnificent Gothic hall.

must always have been the most striking feature and it reflects with marvellous clarity its role as a home for fighting monks (fig. 20). It is the tallest of the surviving Crusader donjons (27 m; Giblet, 21 m; Saone, 22 m; Chastel Rouge, 12 m) and quite different in design from these other purely military structures. The lower main floor consists of a simple but rather grand chapel, now a well-kept and much-used church, with a barrel-vaulted roof which suggests a twelfth-century date, and an apse inscribed in the east wall; only the arrow slits in the walls reveal its military aspect on the interior (plate 53). The upper floor is reached by a staircase in the thickness of the massive walls and leads to a hall, divided by a line of pillars and roofed with groin vaults (plate 54). Above this is a flat roof edged with simple merlons and arrow slits but

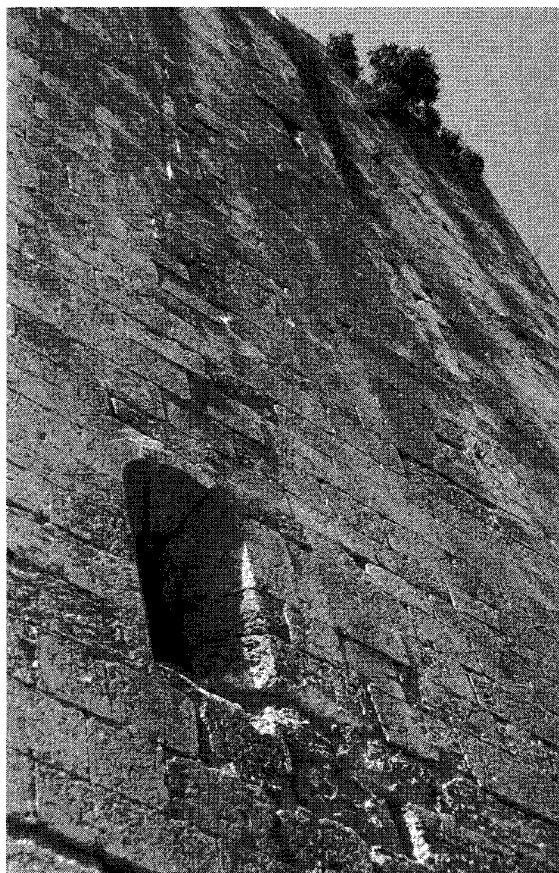


Plate 52 Chastel Blanc: window in south wall of donjon. This is both arrow slit and church window in the great cliff of masonry 27 m high.

showing no indication of machicolations or of holes in the stonework to support hoarding. It is tempting, and probably accurate, to regard the upper hall as a dormitory for the knights who were supposed to live a communal, monastic existence. The interior masonry work, while not rich in ornament, has a fineness and polish which distinguish it from the more functional work in other donjons. No other building in the Latin east shows so clearly the interrelation between religious commitment and military activity in the twelfth century as this mighty fortress church.

The Templars had other properties in the County of Tripoli, the castles at Arima and Chastel Rouge, but it is not clear how much of the fortification at these places was built by them and how much by their baronial predecessors.

In the Principality of Antioch, the Templars seem to have been responsible

CRUSADER CASTLES

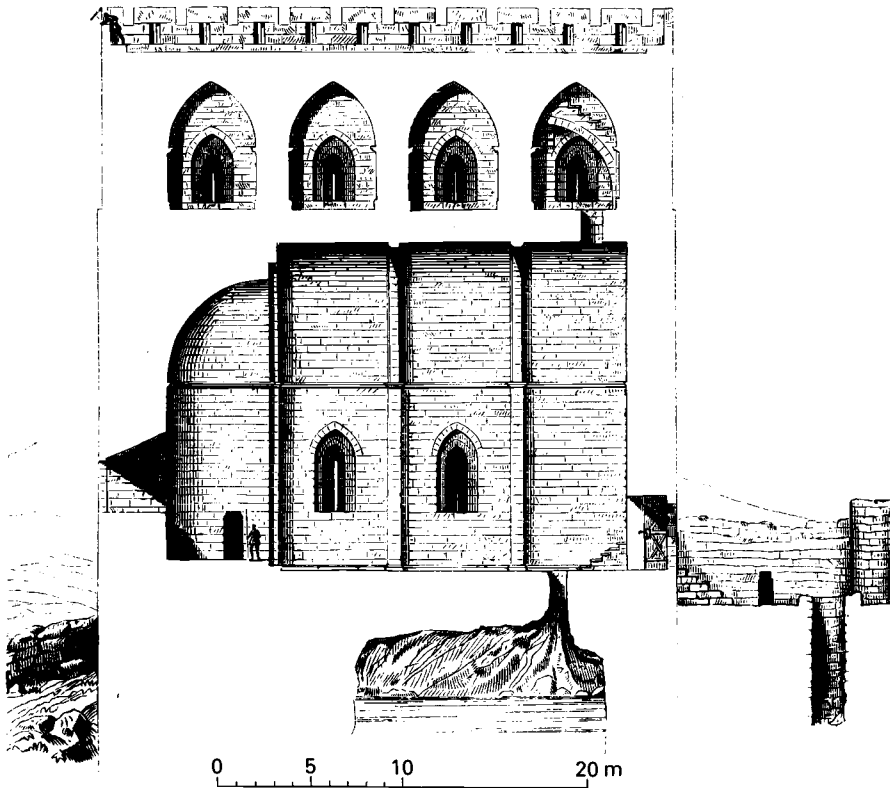


Fig. 20 Chastel Blanc (Safita): section. Note the under-floor cistern, the large chapel which occupies the main bulk of the tower and the upper chamber, possibly the knights' dormitory.

for the construction of three castles in the Amanus mountains, Gastun (Baghras), Calan (the Crusader La Roche de Roissol or possibly La Roche de Guillaume) and Trapesac.¹⁰ The Amanus range, though not very high, is rugged and in many areas heavily forested. Only a few passes across it connect the Principality of Antioch to the south and east with the Cilician kingdom of Armenia to the north and west. Control of these routes was of considerable importance and, though none of the castles is in a position actually to block the passes, they would form a secure base for attacking hostile forces trying to cross the range. The Templars seem to have acquired these sites in the mid-twelfth century (1153 in the case of Gastun), and this mountain area was dominated by them until the time of Saladin's conquests in 1188 when Gastun and Trapesac fell. Gastun was occupied by the Armenians in the thirteenth century while Trapesac remained in Muslim hands despite a Templar expedition from La Roche Guillaume in 1237 to regain it. La Roche de Roissol/

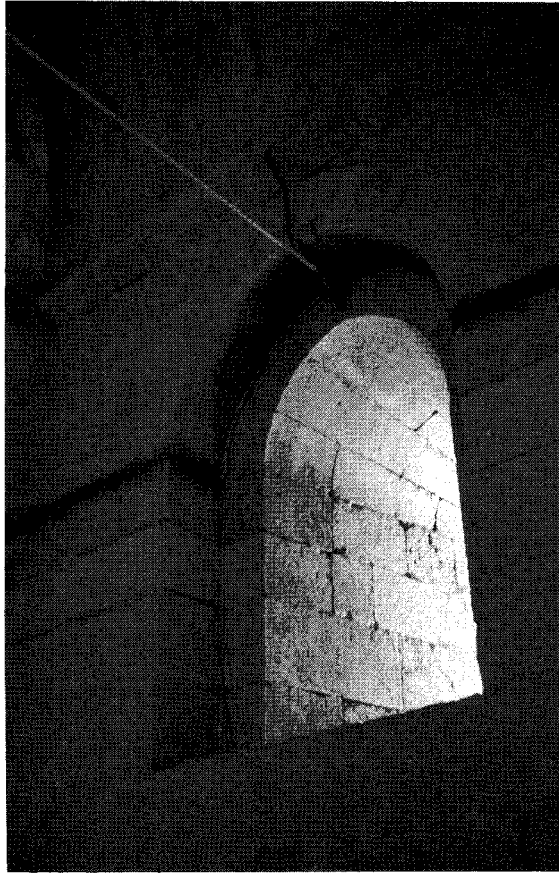


Plate 53 Chastel Blanc: window in south wall of church from interior. Note the simplicity of design combined with very high-quality masonry work.

Guillaume seems to have remained in Templar hands throughout until it was abandoned around the time of the fall of Antioch in 1268.

These castles are markedly different in character from the Templar fortresses of the Kingdom of Jerusalem and the County of Tripoli. They are all on mountain sites, La Roche spectacularly sited on top of a peak, and relied heavily on topography to provide natural defences. The masonry work is poor, consisting of small, irregularly shaped stones and completely lacking the finely finished stonework we find at Chastel Pelerin or Chastel Blanc. The Templars here must have been relying on local masons and architects familiar with the Armenian tradition of mountain-top fortresses.

Only at Gastun (Baghras) are there substantial remains of Templar building.¹¹ Here a rocky knoll is encircled and crowned by fortifications on two levels. The fabric is of small coursed rubble and there are rounded towers and



Plate 54 Chastel Blanc: interior of first-floor chamber from southeast. The squared pillars and ribs are used to support a groin vault.

corners, very much in the Armenian style but quite unlike other known Templar work, and a fine enclosed defensive gallery with arrow slits on the lower level. The Knights built two large, well-lit halls as was their custom. The castle is compact and craggy and was to become a major political issue. It was retaken from the Muslims in 1191, not by the Crusaders of Antioch but by the Armenians, and their possession of this outpost so close to Antioch itself soured relations between these two Christian powers for much of the early thirteenth century until it, like Antioch itself, fell into Baybars' hands in 1268.

The remains of La Roche de Roissol/Guillaume (Calan) are very scanty.¹² The isolated hill-top was defended by a curtain wall and divided into upper and lower baileys. The surviving curtain wall and towers cling to the edge of the precipice. In the upper bailey there are some remains of a hall and rather more substantial ones of a simple apsed chapel about 15 m long. If it was intended to accommodate the garrison for worship, it can never have amounted to more than a small detachment. At Trapesac the site is still more ruinous and, in this case, built over so that even the redoubtable Edwards has been unable to devise a plan.¹³

THE HOSPITALLERS IN TRIPOLI AND ANTIOCH



THE Hospitallers were the partners and rivals of the Templars in the defence of the Crusader states.¹ The order had begun in Jerusalem and before 1187 they had had properties in the city and castles in the rural areas. After the battle of Hattin their castles at Belmont, Belvoir and Bethgibelin were lost and never subsequently refortified by the Christians. They still retained estates in the area of Acre and a fortified palace within the city but no castles (with the exception of the fortified commanderie at Calansue which they regained in 1191 and held until 1265.² Instead they devoted their resources, both from their local estates and from their ever greater holdings in western Europe, to the defence of their great castles in the County of Tripoli.

The Hospitallers' serious connection with the County of Tripoli began in 1144. In this year Count Raymond II of Tripoli granted them what amounted to an independent principality in the east of his county. It included the small towns of Rafanea and Montferrand on the eastern slopes of the mountains looking towards Homs and the Orontes valley, considerable properties in the Buqai'ah (the plain between Homs and Tripoli and separates the mountains of Lebanon to the south from Syrian hills to the north), a number of small fortifications in this plain, fishing rights in the Lake of Homs and a castle on a spur of the Syrian hills, looking both east and south, which the Arabs referred to as Hisn al-Akrad, the Castle of the Kurds. This gift brought with it both assets and problems. On the positive side the lands were rich and fertile, being well watered by streams and by rainfall; on a cold, grey winter day when the rain sweeps in from the Mediterranean, the hills can seem more Scottish than Levantine. The bad news was that these lands were very exposed to Muslim attack from Homs, which was never captured by the Franks, and further afield: it had no natural defences. Yet even this proximity had its advantages



Plate 55 Crac des Chevaliers, twelfth- and thirteenth-century: general view from southwest, showing outer and inner enceintes. The round southwest tower of the outer enciente and the square tower on the extreme right of the picture were rebuilt after the castle was captured by the Mamlukes. It was from this side that Sultan Baybars mounted his assault in 1271 and the original Crusader fortifications were damaged in the attack.

for it meant that the neighbouring Muslim settlements could be raided or put under tribute for the benefit of the Knights. It could also be used to attract pious donations: when the Master of the Hospital Raymond du Puy heard that the king of Bohemia, Wladislav II, was coming on Crusade in 1160, he offered him the keys of the castle 'situated on the frontier with the pagans' and the king rewarded him generously.³

They decided to establish their main base overlooking the plain at the Castle of the Kurds, so called because an eleventh-century Amir of Homs had established a Kurdish garrison there, and they processed to create the finest and most elaborately fortified castle in the Crusader Levant (plate 55) to defend the eastern frontier of the County of Tripoli and to serve as an administrative centre of their great estates.⁴

The defensive role can be seen during the various invasions of the County of Tripoli by the Muslims. In 1180, for example, Saladin ravaged the County, and all its defenders, not daring to challenge him in the field, shut themselves up in their castles, the Hospitallers in Crac.⁵ This meant of course that when the raid was finished, the Knights could emerge again to take over and revive their ravaged lands which could not be protected from being damaged by the

enemy but could be protected from being permanently occupied. The same happened in May 1188, in the aftermath of the battle of Hattin, when Saladin came to prospect the fortress but decided it was too strong and passed on to Tortosa and Margat where he had no more luck. The possession of the castle meant that in the first half of the thirteenth century, the Hospitallers 'principality' of Crac was the only significant inland area of the Crusader states which remained continuously in Frankish hands: the value of a great castle could not be more clearly illustrated.

The offensive function of the castle at Crac is perhaps more unexpected. The golden age came in the first half of the thirteenth century, a period when most of the other Crusader enclaves in the Levant were struggling to survive but when Crac had a garrison of 2,000 and lorded it over the surrounding areas. Most of the evidence for this comes from Muslim sources which, naturally, tend to dwell on their own successes and pass over the less encouraging aspects. Reading between the lines, however, it seems clear that the Knights at Crac extracted tribute on a fairly regular basis from the Muslims of Homs and Hama and the neighbouring districts and that this went on as long as the various members of the Ayyubid family who had divided Saladin's domains up amongst themselves were in covert or open rivalry. As early as 1203 raids were being launched on Hama and Montferrand, now under Muslim control. In 1207-8 the Franks of Tripoli and Crac were attacking Homs. In 1230 the Amir of Hama refused to pay his tribute and a combined force of 500 knights and 2,700 footsoldiers, both Hospitallers from Crac and Templars, set out to take it by force. On this occasion they were rebuffed but in 1233 they assembled a punitive expedition including, in addition to their own forces, the Master of the Templars, Walter of Brienne, with a hundred knights from Cyprus, eighty knights from the Kingdom of Jerusalem led by Pierre d'Avalon, John of Ibelin, lord of Beirut (the great lawyer and senior member of the local aristocracy) and Henry, brother of Bohemond V of Antioch, with thirty knights from the principality. It was as great a show of force as the Crusaders of the Levant could manage at this time, testimony to the prestige of the Knights of Crac and the central role of the castle in the Crusader east. They ravaged the lands of Hama unchallenged and after this the prince of Hama agreed to pay his tribute. The Isma'ilis (Assassins) of the Syrian mountains were paying tribute at the time of Joinville's visit in 1250-1, and as late as 1270 they were still complaining to Baybars about the tribute they had to pay to the Franks.⁶

Crac was also visited by many passing Crusaders who, we may presume, left donations. In 1218 King Andrew II of Hungary came there and was received with royal honours by the castellan, Raymond of Pignans. The king was extremely impressed by the work of the Knights in what he called the 'key of the Christian lands [*terre clavem christiane*]' and endowed them with

income from his own properties in Hungary, 60 marks per annum for the Master and 40 for the brothers. A less affluent but equally chivalrous visitor was Geoffroy de Joinville, a baron from one of the leading families of Champagne, who had been given the right to quarter his arms with those of England by Richard Cœur de Lion on account of his knightly prowess. He joined the Fourth Crusade, many of whose members went on to sack Constantinople in 1204, but he broke away from the mob and came to Syria to fulfil his crusading vows. He died at Crac in 1203 or 1204 and was buried in the chapel, and his shield, along presumably with many others, was hung on its frescoed walls. We know about this because his nephew Jean, the biographer of St Louis, went to Crac in the early 1250s in the course of St Louis' stay in the Levant, and took the shield back to France. There it hung in the collegiate church at Joinville until stolen by some German mercenaries in 1544. Geoffroy's bones probably still lie beneath the paving of the austere and dignified chapel with its simple apse and plain vaulted roof to the present day.⁷

Crac is an exceptional castle. It owed its glories to the wealth the Knights acquired from their own rich lands, from extracting tribute from the neighbouring Muslims and from the generosity of visiting Crusaders.

The good times came to an end after 1250. In 1252 a horde of Turkmans, estimated by the treasurer of the Hospital at Acre as 10,000 in number, ravaged the fertile lands around the castle and after this there are signs that the financial position was deteriorating. In 1254 St Louis finally left the Levant where he had spent so much money strengthening fortifications, and in 1255 Pope Alexander IV replied favourably to a request for exemption from tithes because of the expenses incurred by the Hospitallers in maintaining the castle and a permanent garrison of sixty Knights in the heart of enemy country. In 1268 the Master Hugh Revel complained that the lands on which 10,000 people had lived were now deserted and that no revenues whatever were collected from Hospitallers properties in the Kingdom of Jerusalem. Early in 1270 Baybars allowed his horses to graze on 'the meadows and crops of Crac and this was one of the reasons why it was captured since its only provision came from its crops and these were all used for pasture by the Muslim troops at this time'.⁸

Financial decline was compounded by political changes on the Muslim side with the seizure of power by Baybars in 1260, which meant not only that no more tribute was paid but that a united Muslim army, supported by all the resources of Egypt, now faced the Franks. The Hospitaller garrison dwindled: Hugh Revel in his 1268 letter says that there were only 300 brothers left in the east. Early in 1270 Baybars made a foray in the area of Crac but returned to Cairo on hearing the news that St Louis was launching another Crusade. St Louis died the same year in Tunis and early in 1271 Baybars was free to devote his whole attention to the castle. He left Cairo on 24 January

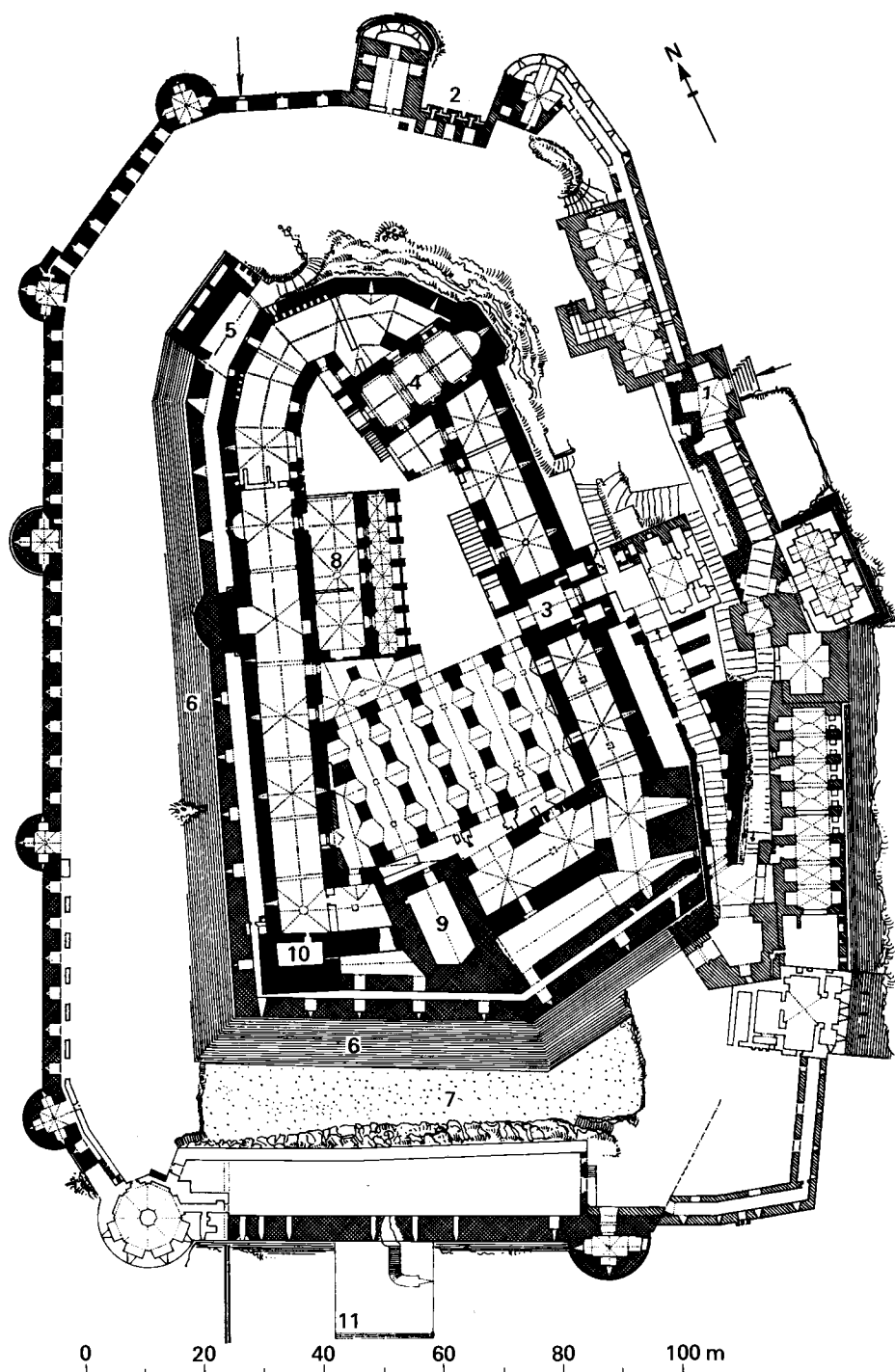


Fig. 21 Krak des Chevaliers: plan at ground level. Twelfth-century Crusader work is in black, thirteenth-century work is hatched and cross-hatched, Muslim work unshaded. 1. Outer gate; 2. postern; 3. gate of inner enceinte; 4. chapel; 5. northwest tower; 6. glacis; 7. tank; 8. hall; 9. residential tower; 10. Warden's Tower; 11. Baybar's Tower.

and, after taking Chastel Blanc and a number of other small forts, appeared outside Crac on 3 March.

Literary and archaeological evidence suggests that the main Muslim attack came from the south front.⁹ Here Baybars set up his siege engines on the outer defensive work which the Knights had built to guard against precisely this eventuality. By 29 March, the outer walls had been breached by a combination of bombardment and sapping. The stretch of wall which was brought down and subsequently rebuilt by the Muslims can be traced in the fabric and Baybars subsequently constructed a massive new square tower to guard this weak point. The garrison retreated to the inner defences and at this point peace negotiations were opened. According to some sources the Franks were tricked into surrender by a forged letter from the Master of the Order in Tripoli but the truth is that once the Muslims had set up their engines inside the outer walls, it was only a matter of time before they took the whole castle. The Knights were allowed to retire to Tripoli and on 8 April they finally abandoned the fortress they had defended so stubbornly. Many of their local allies among the mountain people were not so privileged and were taken prisoner.

The castle stands on a spur of the mountains (figs. 21 and 22). As so often in Crusader castles, there was one side, the south in this case, where the natural defences were non-existent and it was here that the architects of Crac constructed their most elaborate and massive works. There were two main phases of Frankish building. Between the Hospitallers' takeover of 1142 and earthquake of 1170 an enclosure castle was built, much of which is incorporated in the later fabric. It was defended by square towers which do not seem to have projected far beyond the line of the curtain walls. There was a main gate between two small square towers on the east side and a smaller gate in the side of the northwestern tower. In the interior there were vaulted chambers lining the courtyard and possibly a hall for the Knights. It was not dissimilar from other courtyard castles constructed by the Hospitallers in the twelfth century, although the irregular site gave it a distinctive shape.

In 1170 it was damaged by an earthquake and an Arab source mentions that the chapel was demolished. It was probably after this that the present chapel was built, since it interrupts the line of the earlier defences. With its pointed barrel vault and simple apse it is clearly related to the chapel at Margat which we know was built after 1186, though the style would have been considered old fashioned in most parts of France by this period.¹⁰ The twelfth-century walls of the inner court are now largely invisible behind the later work but in the northeast section of the defences two stretches of twelfth-century curtain walling can be seen with the outside of the chapel apse projecting between them. In both chapel and walls, the masonry is distinguished by large rectangular blocks laid in courses with the typical bossed centres and flat margins of twelfth-century work. Further twelfth-century work survives in the north-

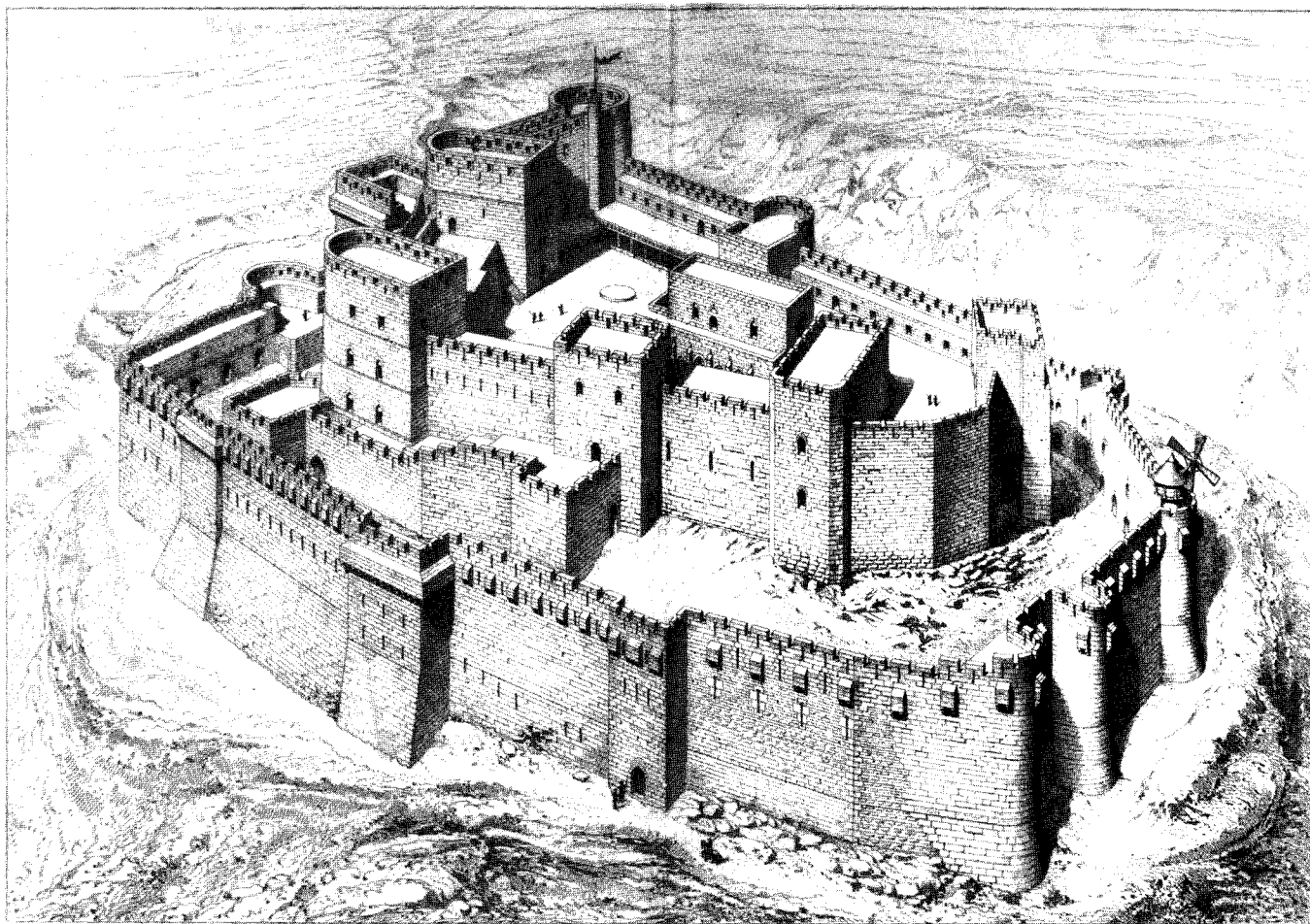


Fig. 22 Crac des Chevaliers: reconstruction, seen from the northeast.

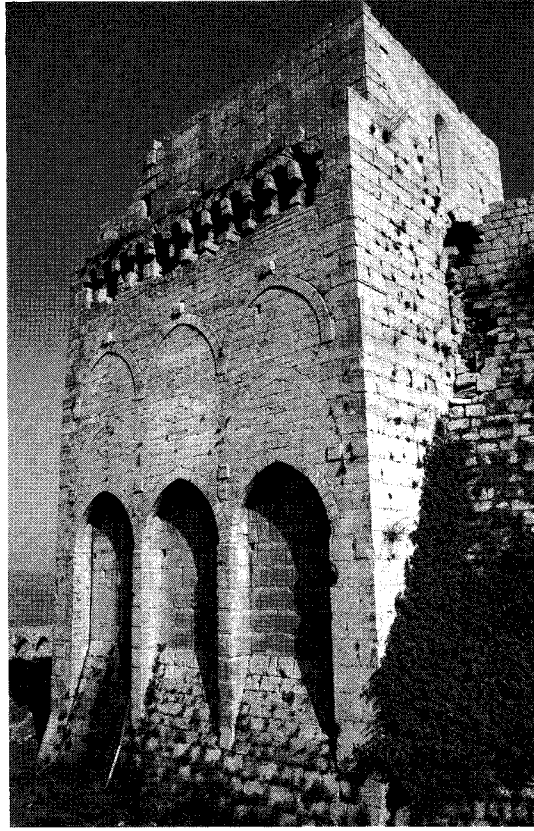


Plate 56 Crac des Chevaliers: tower at northwest of inner enceinte from west (6). This is the only one of the square twelfth-century towers to survive in its original form. Clearly visible are the three arches of the slot machicolations. Above them are a line of small openings which must have given access to a projecting machicolation, probably added in the thirteenth century. The sloping glacis on the right is another thirteenth-century addition. On the far side, this tower shelters a postern gate in the re-entrant angle (not visible here).

west tower of the inner enclosure (no. 5 on the plan), a complex building which shelters a postern gate in one flank (comparable with some in Saone) and three slot machicolations on its front (plate 56). If these are twelfth-century work, as seems likely, they are very early examples and certainly predate the rather similar slot machicolations which were found on Richard Cœur de Lion's donjon at Château Gaillard, 1197-8.

In 1202 the castle was again damaged by earthquake and it may have been after this that it was completely remodelled and assumed its present appearance. This was a period of great military activity in Crac and also a time of



Plate 57 Crac des Chevaliers: west wall of outer enceinte looking south. These round towers were part of the early thirteenth-century rebuilding. Note the corbels for the box machicolations; the continuous machicolation on the far tower is probably Muslim work, added after the 1271 conquest.

great prosperity, and this is reflected in both the scale and the quality of the work. An outer circuit of walls was constructed (there may have been one in the twelfth-century castle but, if so, no trace of it remains). This outer circuit went round the whole castle, but can best be seen on the long west side (plate 57) where the Frankish work is virtually unaltered. This outer wall by itself would form a substantial castle, being 9 m high and defended by prominently projecting towers. In contrast both to twelfth-century Hospitallers work and contemporary Templar building, towers are rounded. It is not just the shape that is new. There are archery slits in the turrets and curtain, so positioned as to minimise the area of dead ground and staggered so they are not directly above each other (plate 58). From these the archers could command the area before the walls in almost complete safety. These wall-head defences were the most elaborate and developed anywhere in the Latin east. There was a

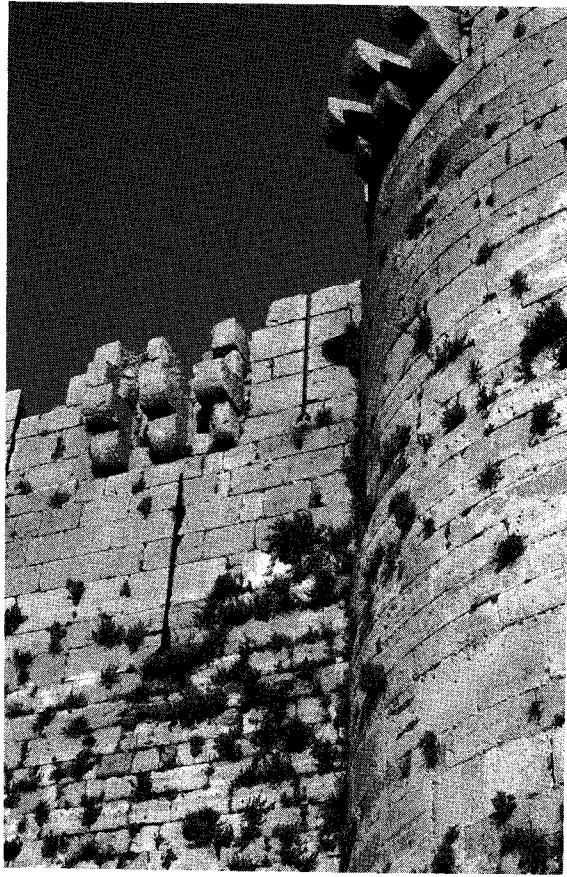


Plate 58 Crac des Chevaliers: tower and curtain on west wall of outer enceinte. Note the corbels which originally supported the box machicolations. Also visible are the long arrow slits with stirrup bottoms to facilitate downward fire; they are not placed above each other, to avoid weakening the wall.

stone-vaulted *chemin de ronde* which gave access to box machicolations boldly projecting on corbels with holes in the floor for dropping missiles and arrow slits in their faces (plate 59). Inside, these machicolations are curiously cramped and claustrophobic (plate 60); the archers who manned them were obliged to squat or kneel and for all the weight of stonework which surrounded them, they must have felt a bit like the tail gunner in a Lancaster bomber, very isolated and vulnerable. The whole structure is a brilliantly designed and superbly built fighting machine.

These box machicolations are an interesting architectural puzzle. Simple corbels at Saone and Margat show that some form of machicolation or hoarding was used by the Crusaders before the end of the twelfth century but there

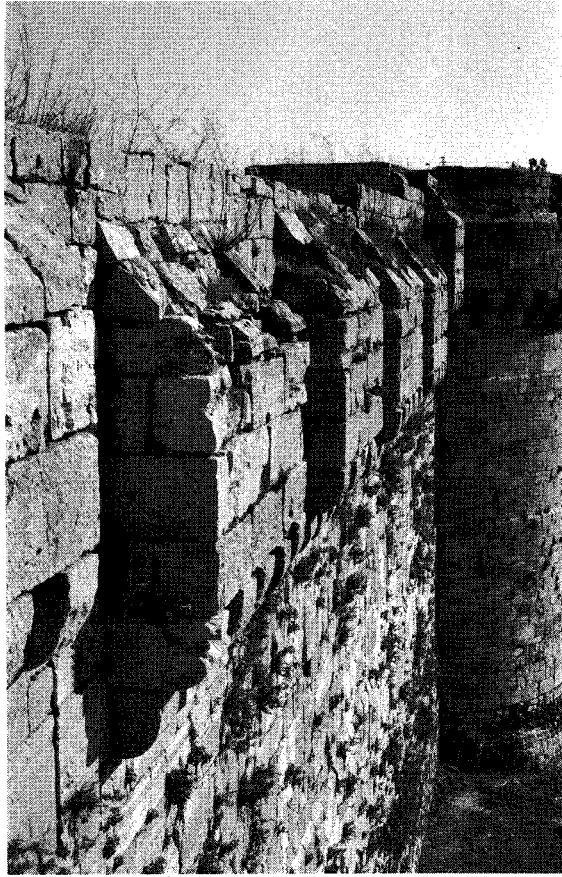


Plate 59 Crac des Chevaliers: box machicolations on west wall of outer enceinte. Note the sloping roof and the corbels, and that each machicolation has an arrow slit in the centre of the outer face.

are no Frankish parallels, either then or later, for the highly developed box machicolations at Crac. There are, however, clear parallels in Muslim work. Some of this is at Crac itself. According to Deschamps, the southwest corner of the outer walls was rebuilt after the siege of 1271 and the builders used both box machicolations and a continuous covered machicolation. These could simply have been imitations and developments of the Frankish work, but more significant are the appearance of such machicolations, identical even to the arrow slits in the front, in the citadels at Aleppo (plate 61) and Damascus, both to be dated to the first decade of the thirteenth century, exactly contemporary, in fact, with the work at Crac. It is difficult to know exactly what to make of this. The similarities are too close to be accidental. It could be that one side copied the others work or that the same group of masons

CRUSADER CASTLES



Plate 60 Crac des Chevaliers: interior of box machicolation with castle wall to the left and outer face to the right. The interior space is extremely narrow and cramped and the defenders must have had to crouch in positions of great danger and discomfort.

were working for both Christian and Muslim patrons in this period. Unfortunately the uncertainty about the exact dating of the work at Crac makes it impossible to know which came first but the evidence for cross-cultural transmission of military technology is indisputable.¹¹

Work on the outer enceinte continued through the thirteenth century. At an unknown date the enclosure was extended at the southeast corner using a rubble masonry greatly inferior to the earlier work. In the north wall a postern gate was added: an inscription records that this was the work of Nicolas Lorgne who was probably castellan in the late 1250s before being promoted to be Marshal of the Hospital in 1269 and finally Grand Master

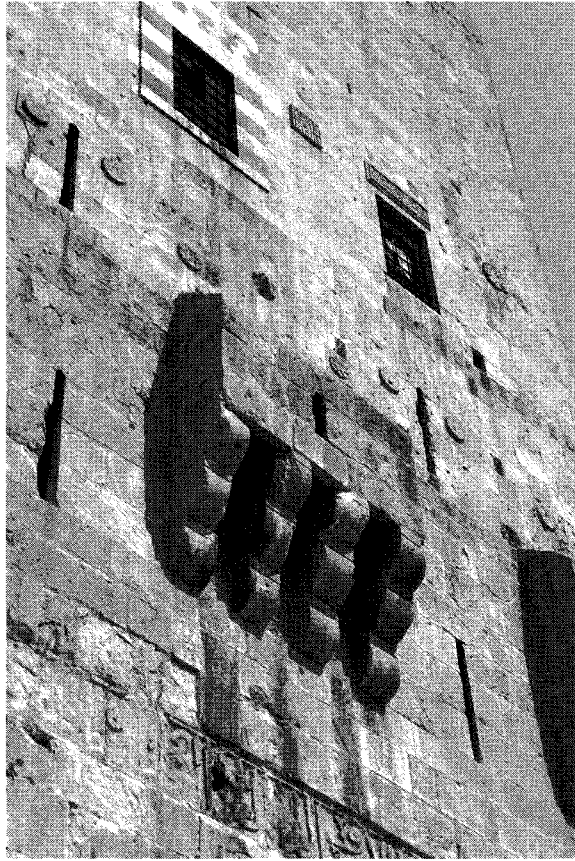


Plate 61 Aleppo citadel, first decade of thirteenth century: machicolation on south façade of entrance tower. The wall above the machicolation is a fifteenth-century addition: the machicolation was originally at or near the wall head. Note the sloping roof, the corbels and the arrow slit in the centre, all strikingly similar to the example at Crac of approximately the same date: nothing similar is known from earlier castle building. Who copied whom and how did the transfer of technology take place?

between 1278 and 1284. This was perhaps the last improvement the Knights made before the loss of the castle in 1271.¹²

The entrance was greatly strengthened at this time. From the outer gate the visitor proceeds up a long vaulted tunnel (plate 62), dominated at all points by defensive positions. Half-way along, this tunnel does a hairpin bend and doubles back to reach the entrance to the inner bailey. Should you go straight on at the bend, you will emerge and find yourself between the two circuits of walls and completely overlooked from the inside. The whole structure is one of those 'bent entrances' beloved of Byzantine builders and historians of military architecture but elaborated and developed beyond anything seen before.

CRUSADER CASTLES



Plate 62 Crac des Chevaliers: entrance tunnel. The long covered passage leading from the main gate to the interior is overlooked for the whole of its length by murder-holes and other vantage points from which the defenders could attack intruders.

The area in between the circuits is quite narrow and was not used as an outer bailey to provide accommodation. Most of it was dry, but on the vulnerable eastern side there was a great open water tank, fed by an aqueduct from the neighbouring hill, which provided both a water supply and a moat.

And so to the massive inner walls which followed the line of the twelfth-century circuit but were built slightly outside it. On the west and south sides, this meant that there was a narrow passage between the old and the new which was developed as a shooting gallery in the thickness of the wall. Only on the north and at some points on the west was the old work visible at all. The south and west fronts are the most impressive. Here the inner wall rises up from a mighty glacis, a steeply sloping cliff of stonework designed to make the wall more stable in the face of siege engines and earthquakes (plate 63). It



Plate 63 Crac des Chevaliers: south façade of inner enceinte from south. The figures in the foreground are standing on the inside of the outer walls. Between them and the foot of the great glacis lies the berquilla or open water cistern. Above stand the two western towers of the south façade with the 'Warden's Tower' on the left. Note the arrow slit half-way up the glacis on the right-hand side, showing that there is a passage along the interior to provide more firing positions.

totally dominates and overlooks the outer wall (plate 64). Out of this glacis spring four round towers, one in the centre of the west front, three huge ones on the south (plate 63). These are immensely impressive, not just because of their size and the way in which they seem to grow almost organically out of the glacis but also because of the superb ashlar masonry. The thirteenth-century Frankish work is mostly constructed in limestone taken from a quarry a couple of kilometres away. Unlike the bossed stonework characteristic of twelfth-century work, this is flat ashlar, so finely and exactly cut that the mortar is almost invisible. The wall-head defences have mostly disappeared but traces along the southern wall show that there were no machicolations

CRUSADER CASTLES

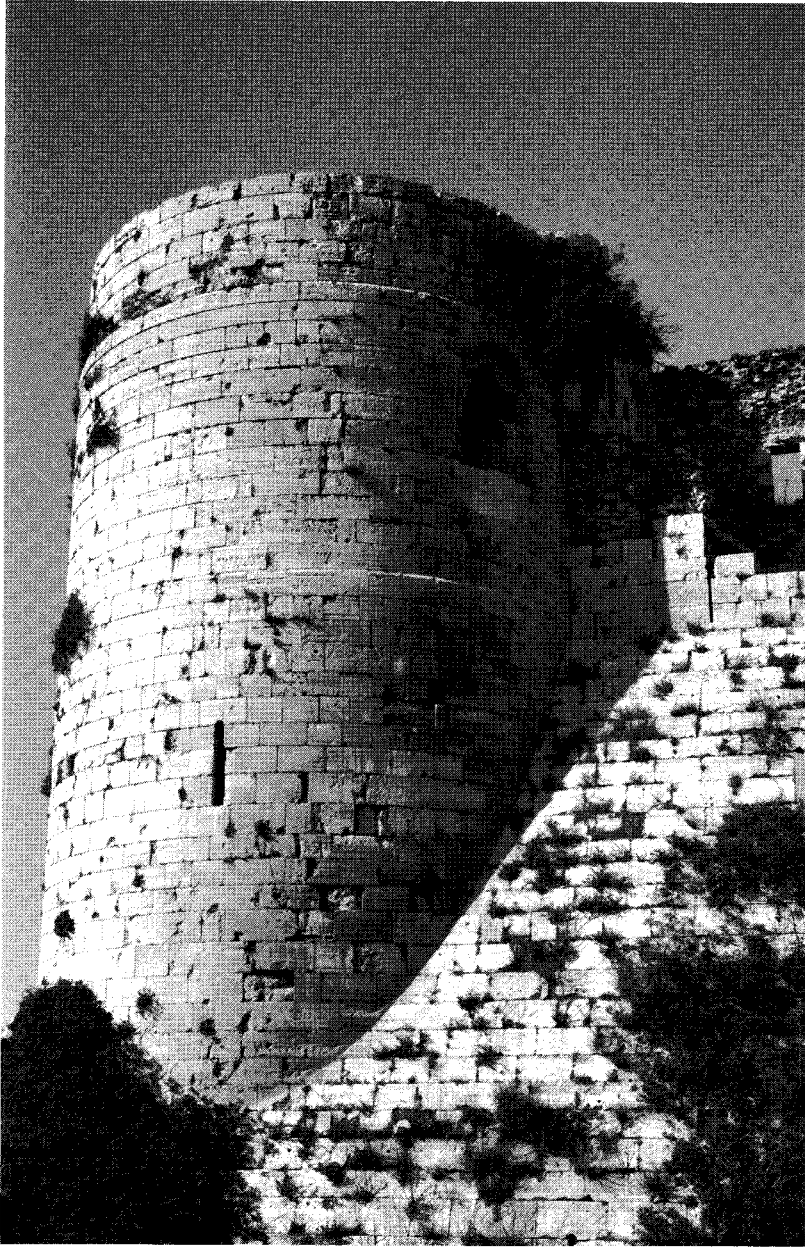


Plate 64 Crac des Chevaliers: southwest tower of inner enceinte, the 'Warden's Tower', from south. Note the large window upper right giving light to the great round chamber within and the superb masonry work where tower and glacis meet.

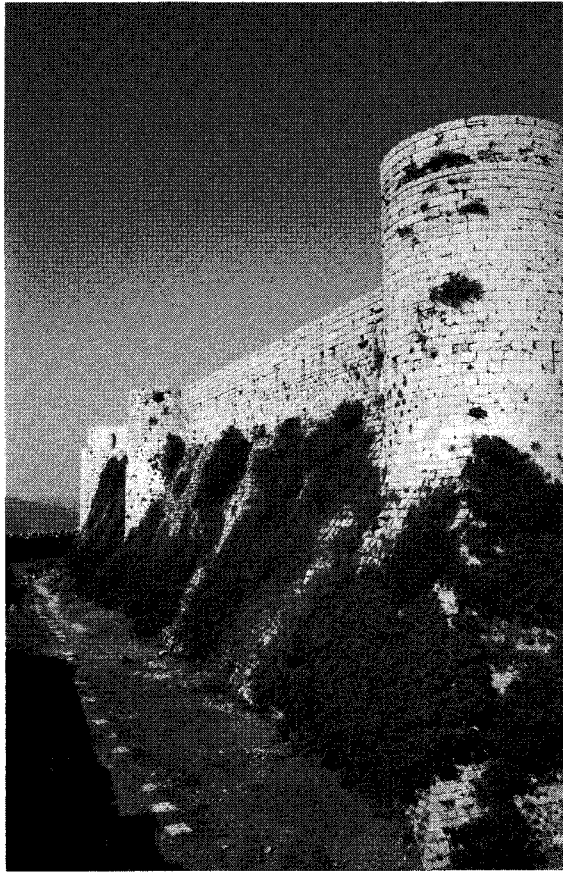


Plate 65 Crac des Chevaliers: western wall of inner enceinte from south. The photograph is taken from the top of the outer wall. The 'Warden's Tower' is on the right, the twelfth-century tower 2 (see plate 56) at the left end.

but arrow slits interspersed with window-like rectangular openings in the parapet, presumably so that the engines mounted up there could fire through.

The interior of the courtyard is comparatively small since three quarters of it is built over (plate 66). The chapel stands at one end and a great raised esplanade at the other (plate 67), supported by squat piers and heavy stone vaults. Like the similar but smaller hall at Saone, this was no doubt designed to provide storage and stabling but also as a much-needed place of shelter from missiles. Along the western side stands the hall of the Knights. This was probably of twelfth-century origin but the interior vaulting, with its roll-moulded ribs, is thirteenth. The most striking feature is the gallery on the courtyard side (plate 68), which probably dates from the 1230s;¹³ elegant, with delicate, slender pillars and tracery, it shows all the refinement of the high

CRUSADER CASTLES

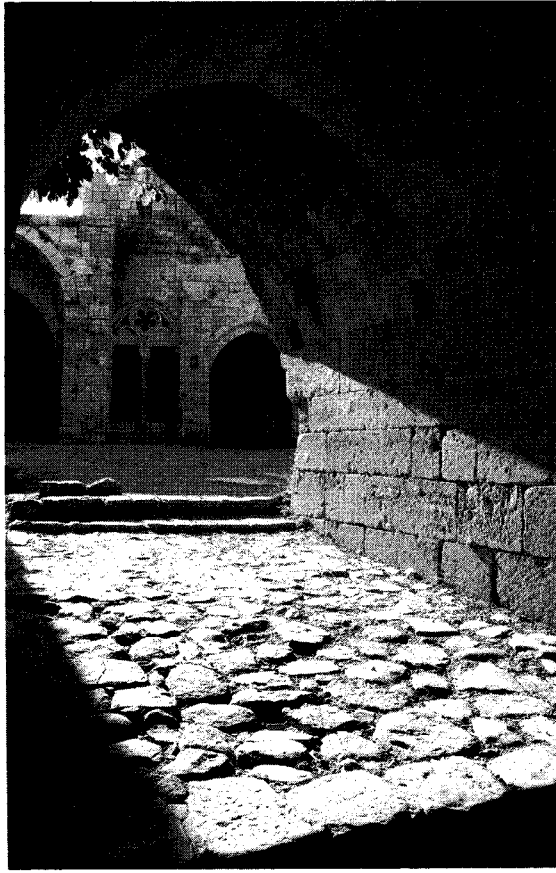


Plate 66 Crac des Chevaliers: entrance to inner court looking west. The gallery of the Knights' Hall can be seen in the background.

Gothic of the thirteenth century (plate 69) and is a perfect complement to the massive fortifications. There is a short Latin verse inscribed on one of the arches:

Sit tibi copia
Sit sapiencia
Formaque detur
Inquinat omnia sola
Superbia si comitetur

(Have richness, have wisdom, have beauty but beware of pride which spoils all it comes into contact with). It may not be fanciful to imagine that this verse was inscribed to warn the Knights against glorying in their magnificent fortress.

The great towers in the southern wall were developed as living accommodation for the sixty or so Knights, the aristocrats of the castle community. The



Plate 67 Crac des Chevaliers: interior of inner court, looking south. The gallery of the Knights' Hall is to the right. Ahead at ground level are the arches of the vast stores and shelters which occupy most of the area of the court. In the distance can be seen the rear of the centre tower of the south façade.

centre tower boasts large airy chambers with rectangular mullioned windows looking down into the court (plate 71) (the outside face, of course, being sternly military). The southwest tower has a large, elegantly vaulted circular chamber. Originally this was military in character and had arrow slits to provide flanking fire along the east and south walls but the slits were later blocked and a large pointed window inserted. It was probably designed in its present form as the lodgings of the Grand Master, away from the other Knights. It has a large arched window from which he could survey the lands which owed him tribute and the direction from which his enemies might approach. There are remains of a small watchtower on top, over which Rey envisaged the standard of the Grand Master, snapping in the stiff Syrian breeze.

Crac has a sister, similar in size, if not in refinement. The great Hospitaller castle at Margat stands on an isolated, triangular 360 m hill overlooking the Mediterranean sea (plate 73). In the political geography of the Crusader states, it lay at the south of the Principality of Antioch but there were close links between the Knights at Margat and those at the sister castle of Crac des Chevaliers, only 60 km away over the hills as the crow flies. As we have seen it was in the years after 1130 that the Mazoir family made Margat the centre of

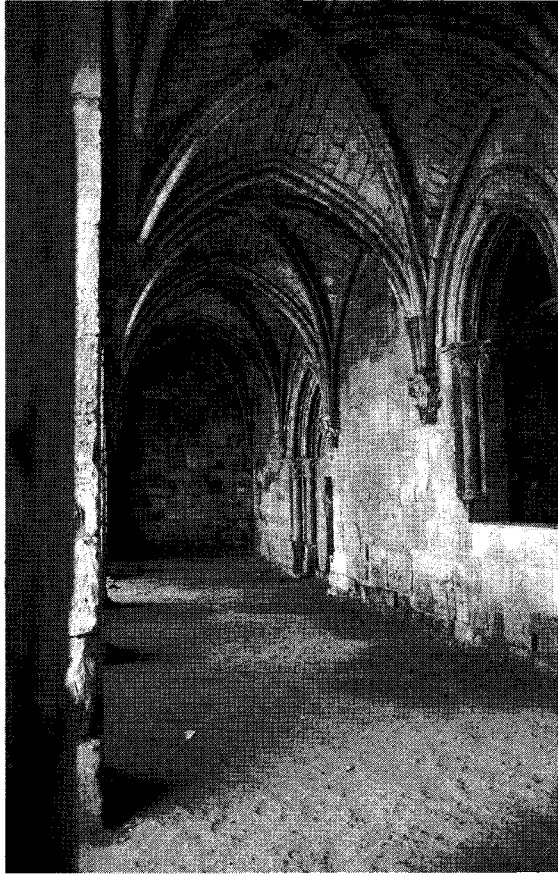


Plate 68 Crac des Chevaliers: gallery of the Knights' Hall looking south. Note the fine rounded pillars and ribs in contrast to the squared ribs favoured by the Templars at Tortosa and Chastel Blanc (plates 49, 51 and 54).

their extensive properties. When the Hospitallers bought the castle in 1186, they also acquired the small seaside town of Valenia, a number of lesser castles and a patchwork of estates, most of them nearby but some as far away as the Amanus mountains, northwest of Antioch. Margat, like Crac, was developed as the administrative centre of vast lands which amounted virtually to an independent principality.¹⁴

Of the Mazoir castle only some stretches of curtain wall with typically twelfth-century square towers now remain but the castle was obviously formidable in 1188 when Saladin looked at it and passed by to find easier prey: 'Recognising that Marqab was impregnable', says Abu'l-Fida, 'and that he had no hope of capturing it, he passed on to Jabala.'¹⁵ Like Crac, Margat enjoyed its greatest power and prosperity in the first half of the thirteenth century and the Knights of the two castles often joined expeditions against Hama and



Plate 69 Crac des Chevaliers: gallery of the Knights' Hall, detail.

other Muslim towns. In response to this, Margat was attacked in 1204–5 by troops sent by the Sultan of Aleppo, al-Malik al-Zahir; they destroyed some of the towers but the Muslim general was killed by an arrow and his army retired. Margat was strong enough to extract tribute from the neighbouring Muslims for most of the thirteenth century and it was not until after the fall of Crac in 1271 that Baybars obliged the Knights to renounce all the revenues and rights they enjoyed in Muslim territory.¹⁶ The garrison at Margat retained their offensive capability almost to the final disappearance of the Crusader states and as late as 1280 200 Knights from the castle launched a successful pillaging raid to the Buqai'ah plain near Crac des Chevaliers, by then, of course, in Muslim hands. The Knights also controlled the north–south coastal road below their stronghold. In addition to the main castle, the Knights built a guard tower, square and massive near the shore, and a wall to connect it to the castle: no-one could pass along the coast road without paying.



Plate 70 Crac des Chevaliers: interior court looking north from centre tower of south façade. In the foreground is the roof of the shelter. At the far end of the court is the chapel with its entrance loggia in front, to the left the Knights' Hall. The square, box-like tower in the distance is the rear of tower 2.

The functions of the fortress were not purely military. By the beginning of the thirteenth century the bishop of the little seaside town of Valenia had abandoned the city and had transferred his see to the castle, where the chapel must have doubled as his modest cathedral. Between 1204 and 1206 a General Chapter of the Hospitallers was held at Margat and the archives (*escris et recordations*) of the Order were collected and kept in the castle.¹⁷ The German traveller Wilbrand of Oldenburg saw it in its prime in 1212.

It is a huge and very strong castle, defended by a double wall and protected by several towers. It stands on a high mountain. This castle belongs to the Hospital and it is the strongest in the whole of this country. It confronts the numerous castles of the Old Man of the Mountain [the Isma'ili Assassin leader] and of the Sultan of Aleppo and has put such a check on their tyranny that it can collect an annual tribute of 2,000 marks from them. Every night four Knights of the Hospital and twenty-eight soldiers keep guard there. The Hospitallers provide for a 1,000 people there apart from the garrison. Every year, the lands around the castle produce harvests of more than 500 carts. The provisions stored there are sufficient for five years.¹⁸

Writing in the 1220s, the Muslim geographer Yaqut observes more succinctly, 'Every one says it is a castle whose equal has never been seen.'



Plate 71 Crac des Chevaliers: wall of centre tower of south façade facing onto court. The exterior of this tower is rounded and fortified (plate 63), the interior has large, rectangular windows lighting spacious, airy chambers which may have been the living accommodation of the Knights, the aristocrats of the castle community.

Margat lacks the style and grace of Crac.¹⁹ This is largely because it is built of the local black basalt, which is hard and unyielding and cannot be shaped and dressed with ease. It is ruggedly impressive rather than beautiful. It stands on a hill commanding extensive views over the Mediterranean far below and the narrow coastal plain to north and south. Inland too the terrain drops steeply and, beyond the valley, the castle surveys the hills where the Assassins lived. It is a harsher and bleaker landscape than the smiling countryside of the County of Tripoli to the south and the building seems to reflect this more austere environment. Only to the south was there a narrow neck of land connecting the castle plateau with the neighbouring hill. The architects rightly saw this as the danger point and protected it with a rock-cut reservoir to discourage

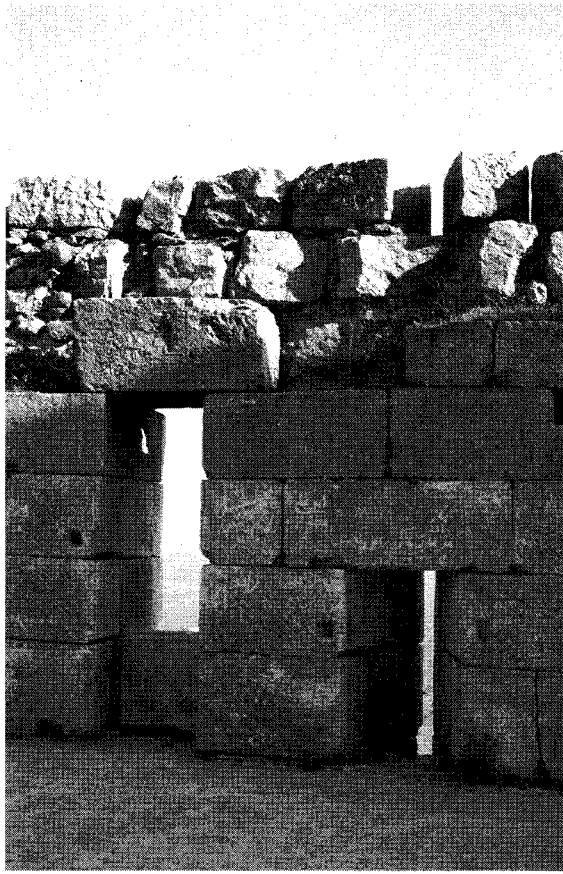


Plate 72 Crac des Chevaliers: wall-head defences on south front of inner enceinte immediately east of the central tower. Note the arrow slit with the steeply sloping stirrup base to allow downward fire and the rectangular opening which may have been designed for use by ballistas.

undermining (as in a similar situation at Kerak) and all the fortifications that money and artifice could devise. The castle walls enclose the flat top of a triangular plateau. As at Kerak and Saone, this area is divided into two sections, a fortress proper and a castletown, divided by a well-fortified ditch and wall.

The long walls which run round the edge of the plateau were defended by a dozen towers, of which all but four are round and seem to date from after the Hospitaller takeover of 1186. The defences of the castletown vary greatly. On the east front there are a series of round towers which protect an outer wall which is essentially a giant hillside terrace. Inside this there was an inner wall crowning a low glacis. It is not clear how far round this inner wall extended and there seem to have been no towers on it. On the north end there is a single wall defended only by one square tower, probably of twelfth-century work.



Plate 73 Margat (Marqab), mostly thirteenth-century: general view from southeast. The isolated plateau on which the castle stands is clearly visible; on the other side the land drops steeply to the Mediterranean. The south provides the only slightly level approach. The small patch of trees below the main tower marks the position of the berquilla or open cistern which provided water defences on this vulnerable side. The citadel stands at this (south) end of the enclosure and is dominated by the great round donjon with its northern edge marked by the conspicuous round tower to the right. Further to the right can be seen the lower but still formidable walls of the castletown. The tower on the wall of the outer enceinte immediately below left on the donjon is the Tour de l'Eperon undermined by the Muslim attacks in 1285 and subsequently rebuilt.

On the west side, overlooking the sea far below, the original enclosure was strengthened in the early thirteenth century by the addition of a fine series of four round towers (plate 74), which Deschamps compares with the round towers on the outer west wall at Crac des Chevaliers, though the finish is not nearly so fine and the wall-head defences are lost.

The main castle lay at the southern end of this enclosure (fig. 23). It is approached through a square gatehouse in the outer walls. Above the entrance arch, there are corbels which must originally have supported a simple machicolation and there is a groove for the portcullis. As at Crac, though in different ways, the entrance system at Margat offers the visitor a variety of choices (fig. 24). It is impossible to go straight through the outer gate and there is no access to the upper floor. The visitor has to make a 90 degree turn to the left, which takes him to the castletown, or the right, in which case he approaches the citadel. In both cases he has to go along an open walk, between inner and outer walls, overlooked by the latter. The visitor to the fortress then makes another 90 degree turn to the left into a gatehouse in the inner walls. The door leads into a long, sloping passage. At the top of this he can either go straight

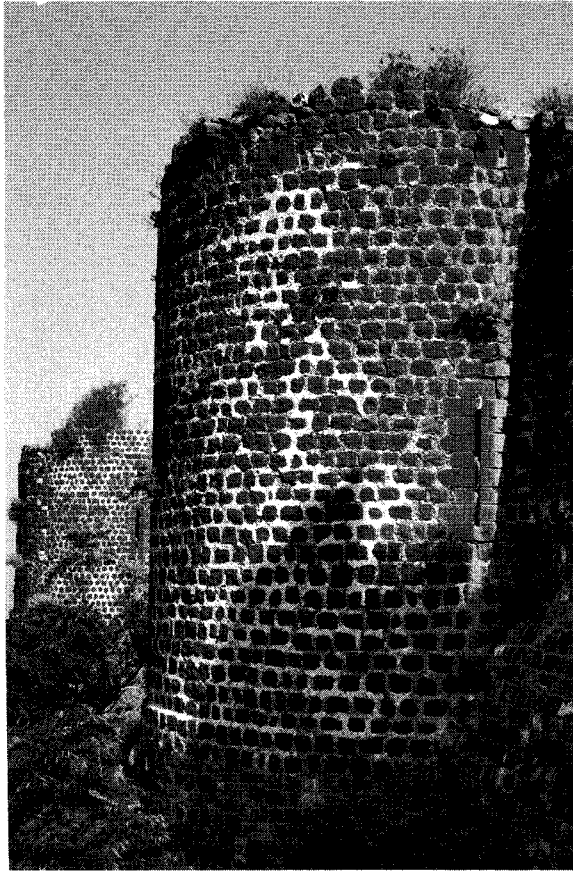


Plate 74 Margat: western wall of castletown enclosure looking north. These great round towers were added by the Hospitallers in the late twelfth or early thirteenth century and can be compared with those on the west outer wall at Crac des Chevaliers (plate 57) though these have lost their wall-head defences and there is no sign that they ever had machicolations (the box machicolations so noticeable at Crac have no parallels at Margat). Note the rugged black basalt of Margat which contrasts so strongly with the smooth white limestone of Crac.

on, which leads him to the corner of the castletown enclosure, or turn right, through yet another fortified gate, into the court of the citadel itself. It was the only entrance and offered no opportunity whatever to the attacker.

The citadel is defended by double walls except on the castletown side where there is a single wall and ditch. On the west (sea) side the outer walls are defended by three square towers which probably date from the time of the Mazoirs before the Hospitaller takeover (plate 75). The wall which connects them is defended by a covered shooting gallery (or 'fortie cooperte' as the

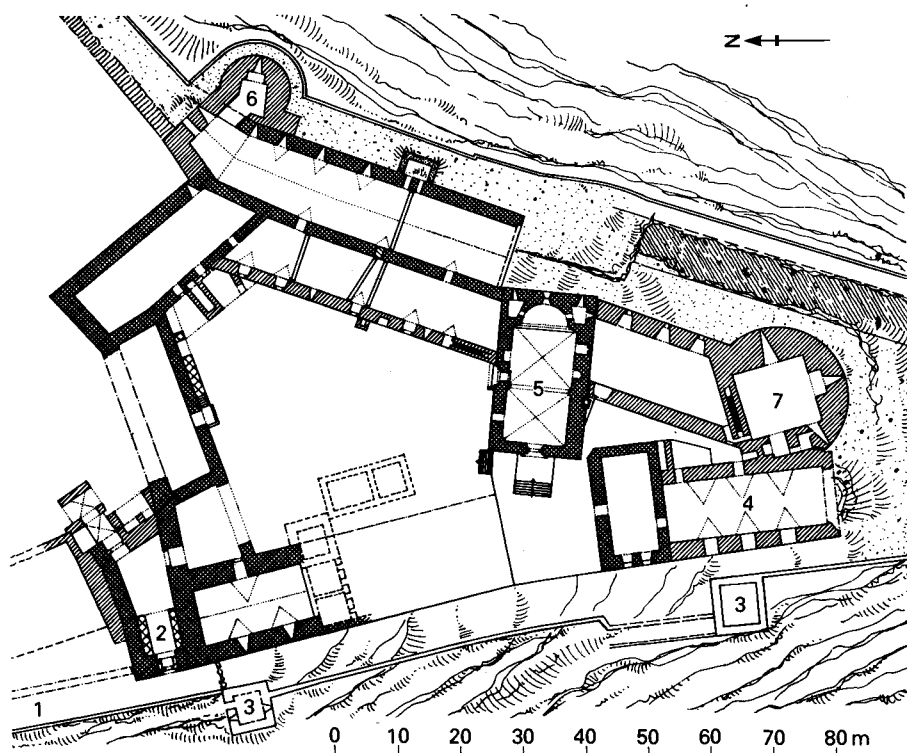


Fig. 23 Margat: plan of citadel (the castletown lay to the north). 1. Path from outer gate; 2. inner gate; 3. twelfth-century towers; 4. hall; 5. chapel; 6. northeast tower; 7. donjon. The Tour de l'Eperon lies off the plan to the north.

account of the building of the castle at Saphet calls these defences in the base of the walls). On the other side, the outer wall has no towers, perhaps because the ground drops away so steeply. At the southern apex of the triangle there was a tower which the Crusaders called the Tower of the Spur (Tour de l'Eperon). It was here that the Muslims undermined the walls and the present structure is a Muslim replacement. As at Crac, the outer walls would be a formidable castle on their own but they are overlooked at all points by the great cliffs of masonry which surround the inner court (plate 76). These are seen at their most impressive on the east side where the huge, plain wall of black stone remains unbroken to the wall head (plate 77). The inner court is surrounded by great vaulted halls, some of them two storeys, for shortage and shelter. On the southwest there is one with more elegant vaulting which

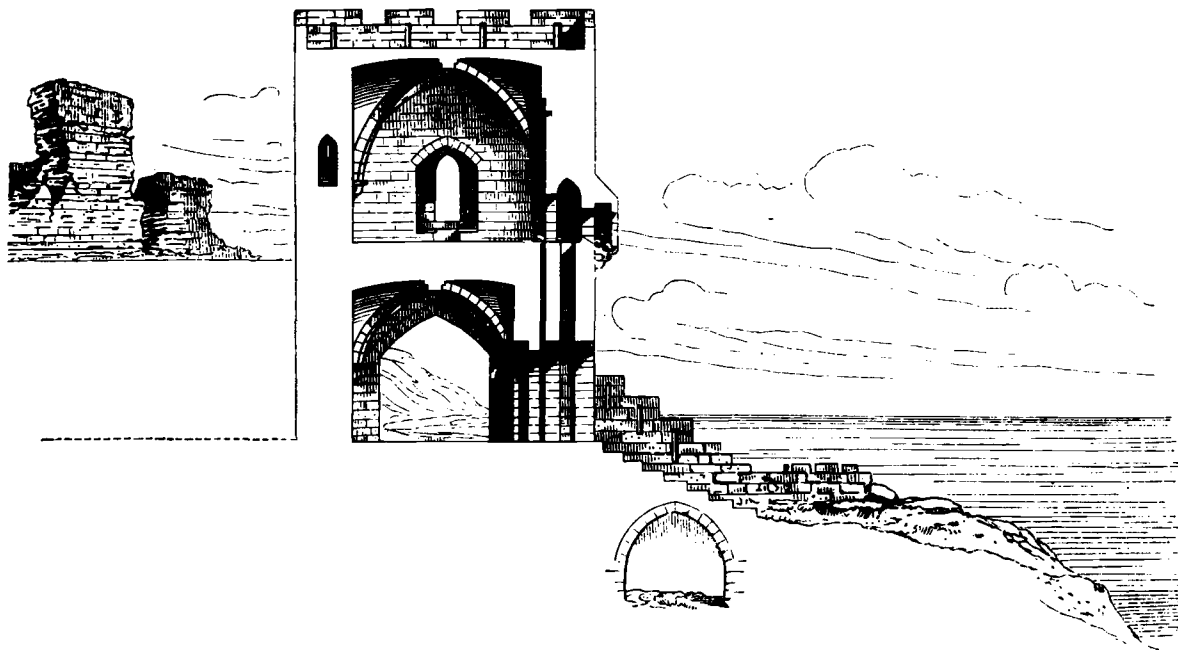


Fig. 24 Margat: section of entrance tower. Note the machicolation and groove for portcullis. There is no direct communication between the ground-floor entrance and the guard chamber above.



Plate 75 Margat: west wall of citadel looking north. The square towers on the outer wall may date from the fortress built by the Mazoir family from whom the Hospitallers bought it in 1186. In the centre is the outer gatehouse. Both the outer and inner walls of the citadel are provided with passages and casements at lower levels (the 'fortie cooperte' of the account of the building of Saphet) to give access to arrow slits near the ground.

was probably the Knights' hall. There was also a grand, austere chapel (plate 78) whose chevet, as at Crac, was incorporated into the defences. It is larger than the chapel at Crac and is divided into two large bays with groin-vaulted roof. It was decorated with frescoes of which traces survive in the side chapels.²⁰

The dating of these various elements is not clear. It is likely that the chapel was built soon after the Hospitallers acquired the castle in 1186. From the fact that several windows were blocked, we can assume that the halls on each side of it are later. There seem to have been numerous changes of plan and additions: in such great castles of the Military Orders, we should think of masons continuously at work, perhaps a new project every year, modifying and developing the fortifications, a new turret here, an additional shooting gallery there. It could be this piecemeal approach, rather than one or two major campaigns, which accounts for the ingenious but rather confusing plan of the defences.

The most impressive defensive works were two massive rounded towers. The smaller of these, at the northeast corner of the inner fortress, still retains its wall-head defences (plate 79). As at Saone, these consist of a lower level with arrow slits, and in one case a larger rectangular opening, and above that

CRUSADER CASTLES



Plate 76 Margat: east walls of citadel from the north. The steeply sloping ground is used to create a massive outer line of defences. The round donjon can be seen at the far end of the inner wall.

a wall walk with merlons, each pierced by an arrow slit. At the south end, where the natural defences are at their weakest, the Hospitaller builders constructed a great rounded donjon 20 m in diameter and 24 m in height which dominates the southern bow of the castle like the bridge of an ocean liner (fig. 25). This can be compared with early thirteenth-century circular donjons in the west: it was larger than Philip Augustus' early thirteenth-century Villeneuve-sur-Yonne (diameter 15 m, original height 27 m) and Pembroke

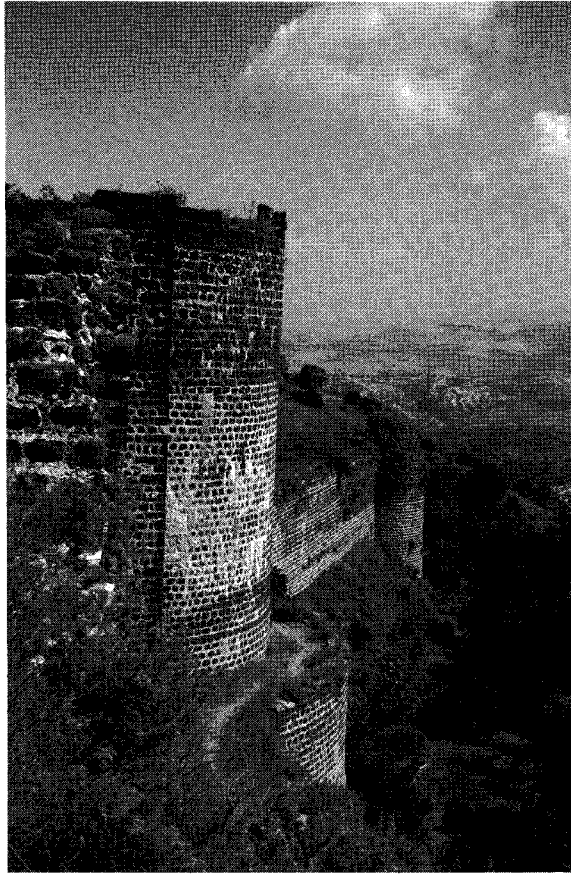


Plate 77 Margat: east wall of citadel looking north. The north tower of the citadel can be seen in the foreground, the walls of the castletown beyond.

(diameter 16 m) and almost identical to Bothwell (diameter 20 m, height 27 m); all of these were dwarfed, however, by the vast circular donjon at Coucy-le-Château (1225–45), wantonly destroyed by the Germans in 1917, which was 31 m in diameter and 55 m in height. It is noticeable that the round donjon at Margat is lower in proportion to its diameter than the western examples, just as the square donjons of the Crusader states tend to be squatter. It also differs from the western parallels in that the interior chamber is not round but square, meaning that the walls are up to 10 m thick in places.

The castle is remarkable for the number of superimposed halls and vaults, all provided with arrow slits to make them shooting galleries. Exploring them is like a tour of a vast, three-dimensional maze; narrow straight stairs in the thickness of the wall, often pitch dark, lead you to yet another cavernous,

CRUSADER CASTLES



Plate 78 Margat: west façade of chapel, showing the basalt structure and limestone detailing: note that the upper part of the façade has been rebuilt, perhaps after earthquake damage.

sombre hall, only lit by thin bright shafts of sun through the arrow slits (plate 80). These halls are roofed with crude rubble vaulting, always in the hard black stone. None of them seems to have any specialised function, although there are two large ovens in one and others were no doubt used as stables. The rest must have served variously as stores and barracks. They also supported an extensive roof terrace, as much as 15 m wide, which is now covered with grass and scrub so that it is hard to believe that you are walking 25 m above ground level. These great terraces must have been designed to support siege engines. We know that engines within the castle played an effective part in the defence against the Muslims in 1285 and it was presumably here that they were mounted. There are also parallels within the terraces at



Plate 79 Margat: thirteenth-century wall-head defences on northeast tower of citadel. This is the only part of the fortress where the wall-head defences have survived. They are on two levels with casemates on the lower and a wall walk above giving access to the crenellations (compare with the twelfth-century examples from Saone, plate 42).

Crac and the ruined vaulting shows that the inner walls at Tortosa and Chastel Pelerin also supported terraces on the inside.

In the early 1280s, a decade after Crac had been lost, the castle was still heavily defended. In 1281, Nicolas Lorgne, sometime castellan of Crac and now Master of the Order, wrote to Edward I that the castle was 'bien garni de frères et d'autres gens d'armes' but he appealed for funds to maintain it. For Burchard of Mount Sion, passing in 1283, it was still 'a strong fortress situated on a very high mountain'.²¹ Despite the ten-year truce then in force, Qala'un began a siege on 17 April 1285, but it was a hard task his men faced and many were killed by the defenders' engines and arrows. On 23 May they

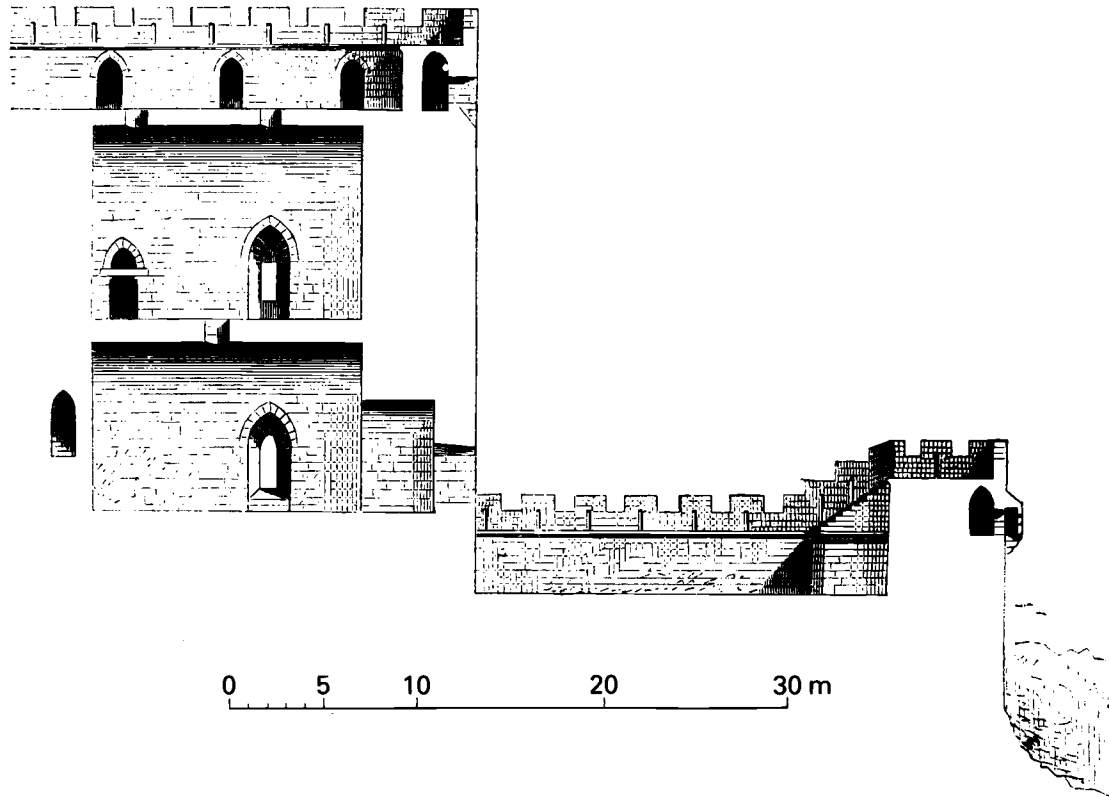


Fig. 25 Margat: section of donjon and Tour de l'Eperon. The Tour de l'Eperon in its present form was rebuilt after the Muslim conquest of 1285.

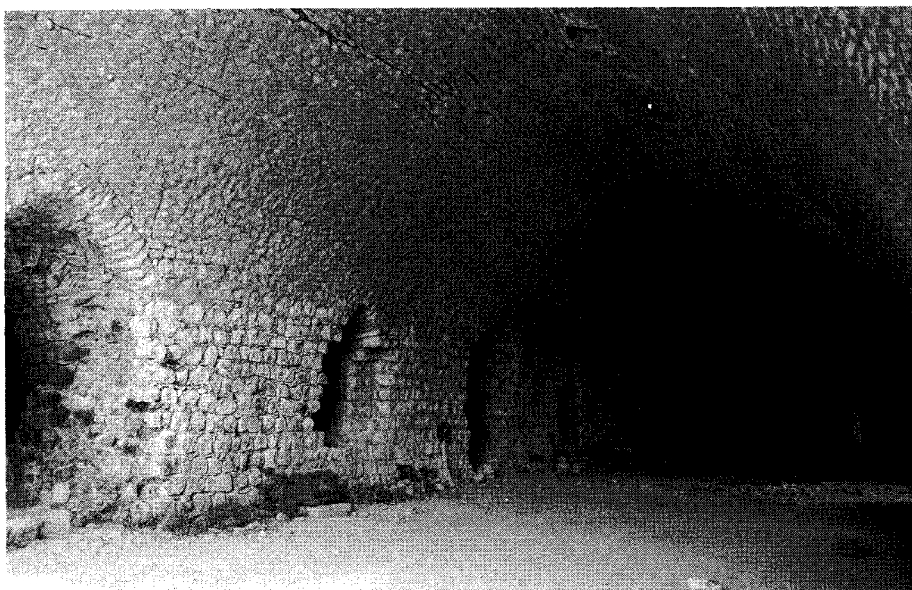


Plate 8o Margat: vaults in citadel, east side looking north. Like all major Crusader castles, Margat had vast vaults for storage and shelter.

undermined the Tower of the Spur²² at the southern end of the outer defences, but it seems to have collapsed into the mine, causing great damage to the assailants. Nonetheless, it soon became apparent to those inside that there were many other mines and the next day the garrison asked for terms. Qala'un wanted the fortress intact and the terms were lenient; the garrison was allowed to retire to Tripoli and Tortosa, twenty-five of the most senior riding out in full armour.

Six and a half centuries later, Deschamps found vivid evidence of the ferocity of the last stand at Margat.²³ Around the arrow slits of the castle defences, there were arrowheads still stuck in the mortar between the stones, showing where the attackers had tried to shoot in at their stubborn opponents. Saphet, Beaufort, Chastel Blanc, Crac and numerous smaller fortresses had all fallen; Margat was the last Crusader castle to endure a major siege and its fall marks the end of an era when ingenuity of design, excellence of craftsmanship and courage in defence could compensate for lack of men and lack of money.

MUSLIM CASTLES OF THE TWELFTH AND THIRTEENTH CENTURIES



AS WAS pointed out in chapter 1, castles as they existed in the west, or even in Byzantium, were hardly known in Muslim Syria at the beginning of the twelfth century.¹ Perhaps surprisingly, the arrival of the aggressive Crusaders does not seem to have inspired defensive fortifications on the Muslim side, though the major earthquakes of 1157 and 1170 may have destroyed much of the evidence. Nur al-Din (1146–74) rebuilt the city walls of Damascus and Homs and the curtain wall of the citadel at Aleppo, and added a tower to the exterior of the cavea of the Roman theatre at Bostra. His work is very much in the twelfth-century style; the towers are small and comparatively far apart (though he did construct round towers on the city walls of Damascus and Homs),² and the defences, both arrow slits and at the wall head, were comparatively simple.

Nur al-Din also rebuilt or repaired a number of fortresses along the marches between the Crusader Principality of Antioch and the territories of Aleppo. Among these were the fortifications on the tell at Harim,³ which must have resembled Aleppo in their time but which have now almost completely vanished, and the tell of Qal'at al-Mudiq.⁴ This was the citadel of the ancient city of Apamea which was taken by the Crusaders in 1106 and retaken by the Muslims in 1149. As at Harim, the curtain wall, embellished with rectangular towers, circles the top of the tell but we cannot really be sure how much of the building dates from the time of Nur al-Din and how much is earlier or later.

On the Orontes north of Hama lay the castle of Shayzar, built along a narrow ridge, and protected on one long side by the gorge of the river and on the other by the steep slope of the land to the rift valley.⁵ This castle had been the family home of the Banu Munqidh, one of whose members, the famous Usamah, has left us a volume of memoirs which gives a vivid and engaging

picture of his life and times. Unhappily it seems that none of the surviving structure can be attributed to this illustrious family who resembled so closely the nobility of western Europe in status and attitudes. The earthquake of 1157 destroyed both castle and dynasty (though Usamah, who had left the family home, survived). Nur al-Din then assigned the castles to one of his Amirs, Ibn al-Daya, whose family held it until 1233. The defences are best preserved at the north end of the ridge, where a bridge allows access from the valley, and at the south end, where a donjon and rock-cut ditch defend the ridge from the adjoining mountain. Very little of this work can be dated, but it is likely that much of the curtain wall and possibly the entrance were the work of Nur al-Din. The donjon at the south end carries an inscription in the name of the Sultan Malik Aziz Muhammad who took the castle from the Banu' l-Daya in 1233. Van Bercham suggests that the inscription was added to an already existing building, possibly of the late twelfth century, but the elaboration of the plan with its vaults and numerous arrow slits is strongly reminiscent of early thirteenth-century Muslim work. Without further investigation, the castle at Shayzar will remain too enigmatic to tell us much about the Muslim fortifications of the time.

We are on much firmer ground in the case of the castle at Ajlun, investigated and published by C. N. Johns.⁶ The castle stands well away from any urban centre, in the wooded hills of northern Jordan, commanding fine views across the Jordan valley to the Crusader-held west bank. It is not on any trade route but may have been designed to counter incursions from the recently constructed Hospitaller castle at Belvoir which lay opposite it on the other side of the Jordan valley. There seems to have been no existing building on the site when the castle was founded by the Amir 'Izz al-din Usamah in 1184-5. The design is an irregular but compact quadrilateral with a small central courtyard and square towers at each corner. There is no donjon. The castle was enlarged in the early thirteenth century but enough remains from the twelfth century to show how similar in technique and design the castle was to Frankish work of the same period.

The early thirteenth century saw major developments in military architecture in the Muslim lands, developments which are the more obvious because of the Ayyubids' helpful practice of leaving dated building inscriptions on their castles. (It would answer a lot of intriguing questions to find one on the outer west wall at Crac.) With the possible exception of Subeibe, this activity does not seem to have been a response to the Crusades but a result of the infighting between members of the Ayyubid family after Saladin's death in 1193. The details of the making and breaking of alliances do not concern us here but the most important development was the establishment of al-'Adil as ruler in Damascus in a series of struggles between 1193 and 1201 against the bitter opposition of other members of his family. In the course of these struggles the

citadel at Damascus was attacked no less than five times and on two occasions the attacks were very hard fought and nearly successful.⁷

When he finally established his power, al-'Adil was determined to fortify the citadel⁸ and other castles under his control so that he could never again be threatened in this way, and in the years before his death in 1218 he transformed Muslim military architecture. This was partly a result of the importance siege warfare assumed in these conflicts which centred round possession of strong points rather than campaigns in the field (in contrast to the inter-Muslim disputes of the ninth and tenth centuries for example), but it was also a result of the increased efficiency of siege engines and the need to defend against them. Cheveddin⁹ argues that the most important change was the need to provide towers, not just for flanking fire along the walls, but as bases for trebuchets with which to bombard an attacking army. While this remains a hypothesis, it does account for the marked change in style of military architecture. The towers of these early century fortresses are more massive (up to 30 m along each side as opposed to the 3.5–6 m typical of twelfth-century and earlier fortification) and more closely spaced.¹⁰ In addition the towers are much more solidly built in finely drafted masonry and the chambers are strongly vaulted. Wall-head defences are also much more developed. In both Damascus and Aleppo we see the development of box machicolations which have no parallel in the architecture of the twelfth century but which are strikingly close in date and design to the ones at Crac des Chevaliers.

It is now clear that there was no citadel in Damascus in Roman or early Islamic times and that the first fortifications on the site were built in around 1077 by the Turkish adventurer Atsiz and continued under Saljuk rule.¹¹ Little trace of this earliest phase survives and the citadel was rebuilt by Nur al-Din in the second half of the twelfth century. After his final establishment in Damascus in 1201, al-'Adil began a major rebuilding which lasted from 1203 to 1216. He called on all the minor princes of the Ayyubid house to contribute a tower, and one inscription survives showing that one of the towers was built by the prince of Hama. Despite this various patronage, the plan of the citadel seems to have been remarkably consistent with the curtain wall being surrounded by thirteen massive towers, only a few of which still retain their original appearance. These towers have stone vaults, and numerous arrow slits entered from the interior chambers. The wall-head defences consist of merlons with arrow slits in them and box machicolations supported on three stone corbels with sloping roofs.

Clear evidence of new techniques of fortification at the beginning of the thirteenth century can be found in the citadel at Cairo. Here Creswell notes that two of Saladin's round towers, finished before 1183/4, were completely enclosed by much larger round towers constructed by his son al-'Adil before

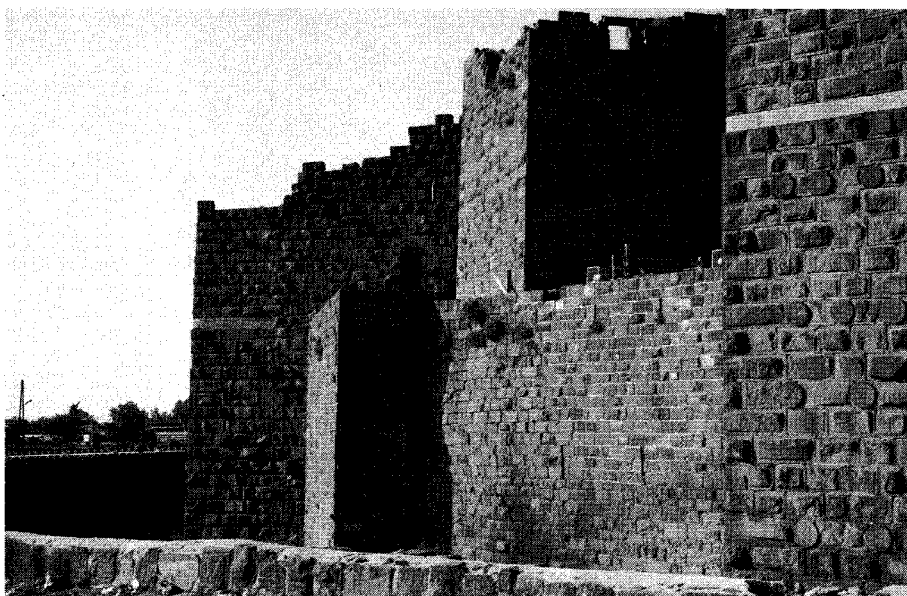


Plate 81 Bosra, citadel, twelfth- and early thirteenth-century: west side from southwest. The citadel stood around the Roman theatre from the end of the eleventh century onwards. Here the high but fairly small twelfth-century tower (upper centre) can be contrasted with the massive early thirteenth-century ones (left and right).

1207/8. Besides being about three times the diameter of the father's work, al-'Adil's towers also have stone machicolations, which Saladin never used. Nothing could illustrate the change in castle building more clearly: a state-of-the-art fortification of the 1180s required complete remodelling only twenty-five years later in the first decade of the thirteenth-century to provide a more active defence.¹²

Closely related to the citadel at Damascus was the citadel at Bosra in the Harwan, also built during the reign of al-'Adil (plate 81).¹³ Here the basis of the castle was the massive Roman theatre (which remains one of the best-preserved examples of a classical theatre anywhere). The earliest fortifications were two small towers added in 1088 by the orders of the Saljuk governor Kumushtakin. In 1147–8 another tower was added to the exterior by the ruler of Damascus, probably in anticipation of Crusader attacks. As with Damascus, however, the whole was vastly strengthened in the reign of Al-'Adil. Between 1202 and 1218, eight massive towers were erected, the largest of which measures no less than 25 × 37 m. All are stone vaulted and some contain almost palatial chambers. Interestingly, the roofing system is not in the local Hawrani style found elsewhere in the building but seems to have

been the work of masons from Damascus. Unfortunately, the wall-head defences are very dilapidated but some brackets for machicolations survive.

Another classical monument fortified in the early thirteenth century was the enclosure of the temples of Bacchus and Zeus at Baalbek. The builder here was a minor Ayyubid prince, Bahram Shah, who added a series of towers between 1213 and 1224 and a curtain wall to connect and improve the classical structure. It is noticeable that Bahram's work is on a much smaller scale than al-'Adil's and the dimensions of the tower much more restricted.¹⁴

In 1228–30 a younger son of al-'Adil's, al-Aziz 'Uthman, built the castle of Subeibe which Kitchener in his *Survey of Palestine* described as 'the finest ruined castle I have seen in the country'.¹⁵ The castle stands on a ridge above the one-time Crusader town of Banyas and was probably constructed in response to the threat posed to Damascus by the arrival of Frederick II's Crusade. The castle was designed to act as an obstacle (indeed the only military obstacle, as the Bishop of Marseilles noted) on the road from the Crusader lands to Damascus. The first fortress was rectangular, built round a courtyard, with square corner towers, somewhat similar in design to the castle at Ajlun. Before 1230 this had been expanded to take in the whole of the ridge, the curtain wall being defended by rectangular towers of fairly modest dimensions, perhaps because here, unlike Damascus or Bosra, the site was on a mountain top which afforded natural protection. The castle was further strengthened after 1260 by Baybars who added much larger towers including, unusually, three round ones, at strategic points.

But perhaps the most impressive example of Ayyubid fortification comes from Aleppo.¹⁶ The citadel on the ancient tell which overlooked the town had certainly been fortified in the late tenth and eleventh centuries and new, fairly small towers had been added to the enceinte by Nur al-Din. In 1209–10 Saladin's son, al-Zahir Ghazi, constructed a new and much more massive gate with a stone bridge across the moat, defended at its outer end by a small tower. Ghazi's work was vastly extended by the Mamlukes in the fifteenth century when a palace was constructed on top of it, and the massive and austere cliff of masonry which is such an impressive feature of the site today dates from this later phase. Ghazi's building was impressive enough. Two great square towers flanked the gate, each well provided with arrow slits so that the defenders could command the entrance from the chambers inside. This led not directly to the interior but to a series of oblong halls at right-angles to each other, making the entrance passage twist and turn so that an assailant could be trapped and harried. The whole work is on a different scale, the masonry much finer than the towers of the twelfth century and earlier. The merlons on the wall head disappeared when the building was heightened, but the box machicolations still survive, now rather incongruously half-way up the façade. They are stone built, resting on four corbels, with

arrow slits on the front and a sloping roof, strikingly similar in design to the almost contemporary examples in the citadel at Damascus and the outer west wall at Crac des Chevaliers.

The similarities between the Muslim and Crusader architecture of the early thirteenth century are striking. Most obviously there is the increased size of towers, the great towers of the citadel at Damascus being paralleled by the oblong ones at Chastel Pelerin and the round ones at Crac and Margat. The use of box machicolations of virtually identical design at Crac, Aleppo and Damascus is too clear to be coincidental. There is also the use of finely cut stone, pointed arches and vaults which often makes it difficult to distinguish Crusader from Muslim work except by date and context. But there were differences as well. Apart from Baybars' work at Subeibe in the 1260s, the Muslims never used the large round towers which are so characteristic of Margat and Crac. The Muslims also made little use of multiple lines of defence and nowhere in their building do we find the careful interrelation of outer and inner walls we find at Crac or Chastel Pelerin; there is nothing in the Muslim architecture of the period which could possibly be considered as a 'concentric castle'. Finally the domestic accommodation is much less developed. The most important Muslim strongholds, Aleppo, Damascus and Bosra, were urban fortifications, and while they contained palace buildings for the ruler, the garrison probably lived in houses in the town except in time of war and there is nothing to compare with the halls, chapels and chambers of the castle-convents of the Military Orders.

POSTSCRIPT: CRUSADER CASTLES AND THE WEST



IT WOULD be natural to assume that changes and developments in the architecture of castles in the Crusader east would be reflected in western Europe, whence most of the Crusaders had come and whither at least some of them returned. In fact the evidence for this is at best ambiguous. The first problem is that castle building in western Europe varied widely: the tradition of castle buildings in the German Empire, for example, remained radically different from that in northern France. When Frederick II embarked on an impressive display of castle building in southern Italy in the first half of the thirteenth century, he made almost no use of the round towers which were universally adopted in Capetian France and Britain at the same time. Instead, at Bari, Trani, Melfi, Gioia del Colle he used high square or rectangular ones, and octagonal at the elegant and ornamental Castel del Monte, though curiously his two surviving castles in Sicily at Catania and Syracuse have round towers. It is in France north of the Loire, and by extension in England, that we should look most profitably for comparisons with Crusader work. This may be partly because, from the mid-twelfth century onwards, the vast majority of the Crusaders came from these areas. A more important reason was that, between c.1180 and c.1220, these areas were the theatre for a prolonged conflict between two powerful and developed states, the Angevin Empire and Capetian France. This was a war in which the control of fortresses played a major part and there were memorable and well-recorded assaults on castles using professional engineers and the most effective siege techniques available: Château Gaillard (September 1203 to 6 March 1204), Rochester (11 October–30 November 1215), Dover and Berkhamstead (both in 1216).

The technologies of assault were very similar to those used in warfare in the

Latin east; indeed it is likely that the use of trebuchets and possibly mining were originally learned during the Crusader wars. Certainly Richard I used men from the Crusader states among his artillery men.¹ It is not surprising, therefore, that the architects of defensive works adopted some similar designs to thwart these new methods of assault.

The most obvious of these was the abandonment of the donjon as the most important feature of the defences. As late as the 1180s Henry II made the great square donjon at Dover the centrepiece of his castle, though there were extensive outerworks to protect it. Château Gaillard has a donjon as a place of last resort, though, again, it is well protected by outer walls. There had been Crusader castles in the twelfth century like Coliath and Belvoir without donjons. Equally both Margat and Crac have towers which are significantly larger than the rest and which might be considered as donjons while the early thirteenth-century castle at Safita is dominated by the vast rectangular donjon. Muslim castles of the early thirteenth century, notably Damascus and Bosra, had no donjons and a pattern of regularly spaced towers of approximately equal size around a perimeter wall. In England, a castle without a donjon is found at Framlingham in the twelfth century. In the early thirteenth this plan became much more common: one of the best early examples is the castle at Fère-en-Tardenois, built by Robert of Dreux around 1205, where seven round towers of equal size project boldly from the polygonal curtain wall. The pattern can also be seen clearly in the castles of Philip Hurepel, Count of Boulogne, at Boulogne (1231) and Hardelot (1228–34). In England we can point to the castles of Ranulph de Blundeville, Earl of Chester, at Beeston (1225), which has an almost Syrian feel with its curtain walls following the edge of the ridge and its rock-cut ditch, and Bolingbroke (1220s), a regular hexagon with round towers at each corner. Donjons did not of course disappear; when Enguerrand de Coucy rebuilt his ancestral castle at Coucy-le-Château between 1225 and 1245, a vast circular donjon was the dominant feature.

The abandonment of the donjon, so vulnerable to artillery and sappers, as the main form of defence was accompanied by the emergence of the concentric castle, with several layers of fortifications so that the outer walls kept the sappers and catapults away from the main fortification. Such a design can be seen at Belvoir in the 1180s and again at Crac in the early thirteenth-century rebuilding. As has been noted, Muslim military architects do not seem to have used this plan extensively but in the west it can be clearly seen in Henry II's work at Dover in the 1180s. But the 'concentric' castle was always a rare (and expensive) exception and only those prepared to make a massive investment in fortification, like Edward I at Beaumaris in the 1290s, could really undertake it.

A much more general change in the west was the adoption of round rather than square towers. Round towers had been used in the twelfth century: the

fine circular donjon at Chateaudun is a good example. Richard I had used exclusively round towers in his building at Château Gaillard and from 1200 in northern France they completely replaced square ones. Philip Augustus' castle building shows this especially clearly; not only did he construct new round donjons for such urban castles as Vernon-sur-Seine or Villeneuve-sur-Yonne, but he also took pains to add round towers to castles already well provided with square ones, which he clearly felt were now out of date. Examples of this can be seen at Falaise, where a high round tower was added at one corner of the massive square donjon of the early twelfth century, and Gisors, where a large round tower was added to an enceinte already well provided with square ones.

In Britain too the round tower soon became the norm. At Pembroke (c. 1200) William Marshal built a great round donjon; almost at the same date a large round tower was erected to provide flanking fire along the walls of an older enceinte at Barnard Castle. King John added round towers to the square defences at Dover and Corfe while at Rochester damage caused by the siege of 1215 was made good by building a round tower onto the square keep. The triumph of the round tower was much more complete in Britain and France than in the Middle East. Its use became widespread in both east and west in the two decades between 1190 and 1210 but we cannot say which came first or point to any direct influence one way or the other.

While the shapes of the towers show some similarities, the scale was different. In the west, the towers tended to remain smaller than the massive artillery platforms we find at Crac, Chastel Pelerin, Damascus or Bosra. At Chastel Pelerin the great towers of the inner walls were 28 m long by 18 m deep and over 34 m in height; al-'Adil's towers on the citadel at Damascus were some 30 m long by about 12 m deep; at Bosra the Ayyubid towers are around 20 m along each side. The largest of the round towers which flank the walls of the castle at Château Gaillard are no more than 10 m in diameter and the early thirteenth-century round towers at Dover are, if anything, even smaller. The round mural towers at Fère-en-Tardenois are only about 10 m across. Furthermore, the mural towers of these western castles were always wooden floored as opposed to the stout stone vaults which were universal in the Middle East. This suggests that these towers were not designed for use as artillery platforms in the way in which the ones in the Middle East were. This explanation is given added force by the literary evidence, or absence of it: trebuchets mounted on towers do not seem to have been widely used to defend castles in the way they were in the Crusader wars.

Wall-head defences developed rapidly in the Middle East and we have noticed before the use of stone-built box machicolations from the first decade of the thirteenth century in both Christian and Muslim work. Stone machicolations are rare in the west before the end of the thirteenth century. The great

tower at Château Gaillard seems to have been provided with slot machicolations somewhat similar to those in the late twelfth-century tower on the northwest of the inner enceinte at Crac. There are certainly stone corbels projecting from the wall heads at both Fère-en-Tardenois and Coucy but the wall head has been destroyed and these may well have been to provide support for wooden hoards. Wooden hoarding, rather than stone machicolation, remained the norm in the west but was almost unknown in the east, either because of the lack of timber or because the Muslim facility with Greek Fire made it vulnerable.

As Fossier recognised, the Crusaders brought back from the east new methods of attacking castles, not new theories of military architecture. In both east and west, architects and builders tried and adapted, coming up with solutions which were sometimes the same and sometimes different; experiment and experience, rather than architectural influences from the other end of the Mediterranean, were the deciding factors.

APPENDIX

INTRODUCTION

This short pamphlet records the reconstruction of the castle of Saphet by the Templars from 1240 onwards. The narrative centres on Benoît d'Alignan, Bishop of Marseilles from 1229 to 1267, who visited the Holy Land twice in 1239–40 and 1260–2. He seems to have been the inspiration for the rebuilding of the castle, as the pamphlet makes clear. The text exists in two copies, one in Paris of the fourteenth century and the other an undated Italian manuscript in Turin. Both are bound in with other Crusader texts including the *Historia Occidentalis* of Jacques de Vitry. The pamphlet must have been written between 1260 when Benoît visited Saphet for the second time and 1266 when the castle fell to the Muslims. Its anonymous author may have composed it simply to commemorate the bishop's work but it seems more likely that this is a fund-raising treatise, designed to be read or used as a basis for sermons and appeals. The emphasis on the cost of the castle, its continuous usefulness to the Christians and, in the final section, its role in protecting well-known Holy Places, suggest that this is a strong possibility. Whatever the motivation of the author, however, the treatise remains one of the fullest and most circumstantial accounts we have of the building of a medieval castle and provides a fascinating insight into what contemporaries thought on the subject.

DE CONSTRUCTIONE CASTRI SAPHET¹

Since it is our firm and steadfast intention to be always zealous in those things which are to the honour of God and to dwell continually and chiefly on those which we perceive to be for the exaltation of the Faith and the Church, the

edification of those around, the salvation of souls and the support of the Holy Land, we propose to set forth specially and principally when and why the castle of Saphet was begun and how it was built.

Why, when and how the building of the castle at Saphet was begun

A great army of Christians, among whom were the King of Navarre and Count of Champagne, the Duke of Burgundy, the Count of Brittany, the Count of Nevers and Forez, the Count of Montfort, the Count of Bar, the Count of Macon and many other counts and barons, arrived to support the Holy Land.² In this army the knights with military equipment numbered more than 1,500 in addition to those who did not have sufficient military equipment and an almost uncountable multitude of crossbowmen³ and footmen. When they arrived at Jaffa and Ascalon and debated how they ought to proceed, certain nobles, trusting in their own strength and disregarding the advice of the Templars, Hospitallers and other churchmen and nobles of the country, left the army by night. And since they did not give glory to God, to whom victory belongs, but instead tried to take it for themselves, they were ignominiously defeated, many of them were captured and killed and the army was driven back to Jaffa in great confusion. There, in order to alleviate and mitigate the disaster, it was decided to rebuild the castle of Saphet, since they could not construct such a good work in the whole land. And so that the Master of the Temple could begin the work, they promised to give him 7,000 marks to pay for it and that the army would stay there for two months so that it could be built more safely and easily.

But when they returned to sandy Acre they forgot their promises and they did not go to build nor did they contribute anything towards it. When a truce was made with the Sultan of Damascus, the king and the great army returned to their country. The bishop of Marseilles, in fact and in name Benedictus, went to St Mary of Saidnaya⁴ on pilgrimage with the Sultan's permission. While he was waiting for some days in Damascus as commanded by the Sultan, many people frequently inquired of him if Saphet was to be rebuilt. When he asked them why they inquired so insistently, they answered that with the building of the castle of Saphet, the gates of Damascus would be closed.

Therefore when the bishop returned from Damascus, he carefully observed the land as far as Saphet and he did not see any fortress apart from Subeibe which was held by the nephew of the Sultan.⁵ When he reached Saphet he found there a heap of stones without any building where once there had been a noble and famous castle and there he was received with great joy by brother Rainhardus de Caro who was at that time the castellan there. But they had nowhere there to lay their head except *garbelarias* [cloaks of wool-linen union

or perhaps jabalas] which the servants of the brothers carried on which they made the beds of their masters.

When the bishop had inquired carefully about the surroundings and district of the castle, and why the Saracens were so fearful of it being built, he found that if the castle were constructed, it would be a defence and security and like a shield for the Christians as far as Acre against the Saracens. It would be a strong and formidable base for attack and provide facilities and opportunities of making sallies and raids into the land of the Saracens as far as Damascus. Because of the building of this castle, the Sultan would lose large sums of money, massive subsidies and service of the men and property of those who would otherwise be of the castle and would also lose in his own land casals [villages] and agriculture and pasture and other renders since they would not dare to farm the land for fear of the castle. As a result of this, his land would turn to desert and waste and he would also be obliged to incur great expenditure and employ many paid soldiers [*stipendiarios*] for the defence of Damascus and the surrounding lands. In brief, he found from common report that there was no fortress in that land from which the Saracens would be so much harmed and the Christians so much helped and Christianity spread.

When the bishop heard this and similar opinions, he came to Acre and visited the Master of the Temple, Armand de Périgord, who was lying sick, and the Master asked him what he had seen and heard in Damascus. The bishop told him about what seemed more significant to him, what he had seen and heard about how the Saracens were in fear and trembling and seeking reassurance about the building of the castle at Saphet. So with reference to what he had said, he began to persuade him forcefully and insistently that they should devote all their strength to build it quickly during the time of truce. But the Master said to him with a sigh, 'Lord Bishop, it is not easy to build Saphet. Did not you yourself hear what the King of Navarre, the Duke of Burgundy and the counts and barons of the army promised about going to Saphet so that it could be built more securely and more rapidly, and how they would stay there for two months and give 7,000 marks for the building? In the end they did not pay a single penny for the building and you are saying that we should build the castle without a help from anyone?'

Then the bishop said, 'Master, stay resting in your bed and give your good will and your verbal support to the brothers and I have faith in the Lord that you will do more from your bed than a whole army with a multitude of armed men and the abundance of their riches.' Since the bishop persisted, the great men who were there said, 'Lord Bishop, you have said what seems good to you and the Master will take counsel and respond to you.' When the bishop had withdrawn from the Master, he summoned the senior members of the

council and convinced them of what he had said to the Master and satisfied them completely and they replied that he should come the next day and get the Master to place this before them in council.

How the bishop of Marseilles persuaded the Master of the Temple and his council to build the castle of Saphet

The following day the bishops came to the Master and asked him to call his council because he wished to speak to them about something important to him. When they came the bishop said to them,

‘Lords, I understand that your Order⁶ was first begun by holy knights who dedicated themselves totally to the protection of the Christians and attacks on the Saracens. Since they kept to this firmly and faithfully, the Lord exalted and favoured your Order with the Apostolic See and with kings and princes and today your Order is greatly celebrated and renowned with God and men. It seems to me that you should now follow the example of those holy knights. When I was in Damascus, I found out from many people that there is nothing else that the Saracens would fear as much as the building of Saphet, since it is said that with the building of that castle, the gates of Damascus are closed. We ourselves have seen and inspected the site and it is commonly known that it is not possible to build a castle or fortress in this land, by which Christianity can be so well defended and the infidelity of the Saracens attacked, as Saphet. Because of this I as your faithful friend, mindful of the honour of God, the salvation of souls and the promotion of your Order, ask, advise and demand that you, as faithful servants of God and devoted and strong knights, look back to the example of those first holy knights, who founded your Order and that, following the example of your founders, you offer you and yours to build the castle of Saphet, which will always remain such a threat to the infidels and such a defence to the faithful. I however do not have the money which would be sufficient for you for this work but I offer myself to make a pilgrimage there, if you want to build it. If however you don’t want to, I will preach to the pilgrims and go there with them to build of rubble because there is there a big pile of stones, and I will make there a wall of dry stones to defend the Christians from the attacks of the Saracens!’

When he had heard this, the Master, as if laughing replied, ‘You are clearly determined what should be done!’ and the bishop added, ‘May you and yours take good counsel and may the Lord be with you.’ And so he withdrew from them. The Lord, however, directed their council and they unanimously decided that the said castle should be rebuilt now while they were at truce with the Sultan of Damascus, because if it was put off, the building could easily be delayed.

The joy at the building of the castle at Saphet

When it had been decided that Saphet should be built, there was great joy in the House of the Temple and in the city of Acre and among the people of the Holy Land. Without delay an impressive body of knights, serjeants, crossbowmen and other armed men were chosen with many pack animals to carry arms, supplies and other necessary materials. Granaries, cellars, treasuries and other offices were generously and happily opened to make payments. A great number of workmen and slaves [*operarii et sclavi*]⁷ were sent there with the tools and materials they needed. The land rejoiced at their coming and the true Christianity of the Holy Land was exalted.

The bishop of Marseilles himself came with those pilgrims he could bring and pitched his tents on the site of the synagogue of the Jews and the mosque of the Saracens so that by this he indicated and clearly showed that the castle of Saphet would be rebuilt to weaken the unfaithfulness of the infidels and strengthen and defend the faith of Our Lord Jesus Christ. When everything that was required for the beginning of so glorious a work was ready, after the celebration of Mass, the bishop came and gave a short sermon to encourage the devotion of those present, called on the grace of the Holy Spirit and, with a blessing and due solemnity, laid the first stone to the honour of Our Lord Jesus Christ and the exaltation of the Christian faith. On the stone he displayed a silver gilt jar full of money to support subsequent work. This was done in the year of the Lord 1240, on the third of the ides of December [11 December].

How a well of fresh water was found within the castle of Saphet

Since there was a lack of water there and since it was brought from afar by many pack animals with labour and expense, the bishop sought for several days to find small springs to make a cistern [*berquilla*] to collect water in. A certain old Saracen man said to the bishop's steward, 'If your lord gives me a tunic, I will show him a spring of fresh water within the castle.' When he had promised him the tunic, he showed him the place where there is now a well over which there were ruins of towers and walls and many piles of stones. When they asked him again for a clear sign, he said that they would find a sword and a helmet of iron in the mouth of the well and so it was found to be. Because of this, they worked more determinedly and strenuously there until at length excellent flowing water was discovered in great abundance for the whole castle. The bishop stayed there until the castle was firmly established so that it could defend itself against the enemies of the faith. When he returned home he gave to the castle as if to his dearest chosen son, all his tack, tents and furnishings and, having given his blessing, he entrusted the guardianship

and progress of the work and the workmen to Our Lord Jesus Christ to whose honour it was begun and to whose name it was dedicated.

The wonderful construction of the castle of Saphet

When, however, the same bishop returned to support the Holy Land against the Tartars on 4 of the Nones of October [4 October 1260], and came to visit Saphet, he found that, between the one journey when the bishop returned to Marseilles and the other by which he returned to Saphet, by the grace and providence of God and the energy and prestige of the brothers of the Temple, the castle had been built with such industry and such wonder and magnificence that its exquisite and excellent construction seemed to be made, not by man but rather by almighty God.

To understand this more fully and make it clearer: the castle of Saphet is situated almost half-way between the cities of Acre and Damascus, in Upper Galilee on a spur entirely surrounded by mountains and hills, sheer precipices, crags and rocks. From most directions it is inaccessible and impregnable because of the difficulties, hardships and narrowness of the roads. In the direction of Damascus, however, it has the river Jordan and the Lake of Genasereth (also known as the Sea of Galilee and the Sea of Tiberias) like a rampart and these are like natural fortifications at a distance. There are however there both inner and outer wonderful manmade fortifications and buildings to be admired.

It is not easy to convey in writing or speech how many fine buildings there are there: what fine and numerous defences and fortifications with ditches, which measure 7 cannas [15.4 m, a canna is 2.2 metres] in the depth of rock and six in width: what inner walls, 20 cannas [44 m] high and a canna and a half [3.3 m] thick at the top: what outer walls [*antemuralia*] and trenches [*scama*], 10 cannas [22 m] in height and 375 cannas [825 m] in circumference: what underground tunnels between the outer wall and the [inner] ditch with underground chambers round the whole castle for 375 cannas [825 m]: what casemates, which are called *fortie cooperte*, which are above the ditches and underneath the outer wall, where there can be crossbowmen with great balistas which defend the ditches and things near and far and cannot be seen by others from outside where they can be safe without any other protection: what towers and battlements [*propugnaculis*] where there are seven towers, of which everyone is 22 cannas [48.4 m] in height, ten (22 m) in breadth, with walls two cannas [4.4 m] in thickness at the top: how many offices for all necessities: what number, size and variety of construction of crossbows, quarrels, machines and every sort of arms, and what effort and amount of expense in making them: what number of guards every day, what number of the garrison of armed men to guard and defend and repel enemies who were

continually required there: how many workmen with different trades, how much and what expenses are made to them daily. It is not suitable to pass by in silence such famous, such exceptional, such magnificent and such necessary works done and needing to be done for the honour of God and the exaltation of the Christian name, for the bringing down of the infidel and the building up of the faithful but at least to proclaim some of them to encourage the devotion and compassion of the faithful.

The massive daily expenses for guarding the castle of Saphet

For the honour therefore of Our Lord Jesus Christ and to show the devoted strength and immense need of the holy knights of the Order of the Temple, and to encourage devotion and compassion and to kindle the charity of the Christian faithful towards the Order and the castle, we will detail the expenses which the house of the Temple made there for building. For as we asked and carefully inquired from the senior men and through the senior men of the house of the Temple, in the first two and a half years, the house of the Temple spent on building the castle of Saphet, in addition to the revenues and income of the castle itself, eleven hundred thousand Saracen bezants, and in each following year more or less forty thousand Saracen bezants. Every day victuals are dispensed to 1,700 or more and in time of war, 2,200. For the daily establishment [*stablimento cotidiano*] of the castle, 50 knights, 30 serjeants brothers, and 50 Turcupoles are required with their horses and arms, and 300 crossbowmen, for the works and other offices 820 and 400 slaves. There are used there every year on average more than 12,000 mule-loads of barley and corn apart from other victuals, in addition to payments to the paid soldiers and hired persons, and in addition to the horses and tack and arms and other necessities which are not easy to account.

The excellence of the castle of Saphet

To show the excellence of the castle so that so much work does not seem useless, burdensome, dispensable and insufficient, or unfit for habitation, it should be noted that the castle of Saphet has a temperate and healthy climate, rich in gardens, vines, trees and grass, gentle and smiling, rich and abundant in the fertility and variety of fruit. There figs, pomegranates, almonds and olives grow and flourish. God blesses it with rain from the sky and richness from the soil and abundance of corn, vines, oil, pulses, herbs and choice fruits, plenty of milk and honey, and pastures suitable for the feeding of animals, glades, trees and woods for making lime-kilns and for cooking plentiful foods, very good stone quarries in the place for building work and irrigation from springs and large cisterns to water animals and irrigate plants, not only

outside the castle, but even within where very good fresh water abounds and several great cisterns suitable for any purpose.

There are there twelve water-mills outside the castle and many more powered by animals or wind and more than enough ovens, as is appropriate. Nor is anything lacking for the nobility and needs of the castle; there are various sorts of hunting and various sorts of plentiful fish in the River Jordan, the Sea of Galilee, the Lake of Genasereth and the Great Sea, from other places whence fresh or salt fish can be brought daily.

Among the other excellent features which the castle of Saphet has, it is notable that it can be defended by a few and that many can gather under the protection of its walls and it cannot be besieged except by a very great multitude; but such a multitude would not have supplies for long since it would find neither water nor food, nor can a very great multitude be near at the same time and, if they are scattered in remote places, they cannot help one another.

The usefulness of the castle and the surrounding places which are attached to it

You can realise how useful and necessary the castle is to the whole of the Christian lands and how harmful it is to the infidels by the experience of those who know that before it was built the Saracens, Bedouin, Khwarazmians and Turkmen used to make raids to Acre and through other lands of the Christians. By the building of the castle of Saphet, a bulwark and obstacle was placed and they did not dare to go from the River Jordan to Acre, except in very great numbers, and between Acre and Saphet loaded pack animals and carts could pass safely and agricultural lands could be worked freely. Between the River Jordan and Damascus, on the other hand, the land remained uncultivated and like a desert for fear of the castle of Saphet, whence great raids and depredations and layings waste are made as far as Damascus. There the Templars won many miraculous victories against the enemies of the Faith, which are not easy to recount since a great book could be written about them.⁸

However it should not be omitted that below the castle of Saphet in the direction of Acre, there is a town or large village [*burgus sive villa magna*] where there is a market and numerous inhabitants and which can be defended from the castle. In addition the castle of Saphet has under its lordship and in its district, more than 260 casals, which are called *ville* in French, in which there are more than 10,000 men with bows and arrows in addition to others from whom it is possible to collect large sums of money to be divided between the castle of Saphet and other Orders and barons and knights to whom the casals belong, and from whom little or nothing could be collected before the building of Saphet, nor would it be collected today if the castle had not been built since all were in the possession of the Sultan and other Saracens.

When considering its usefulness, the most important thing of all should not be omitted, that now it is possible to preach the faith of Our Lord Jesus Christ freely in all these places and to destroy and disprove publicly in sermons the blasphemies of Muhammad, which was not possible before the building of Saphet.⁹ The Saracens no longer presume, as they did before, to proclaim the blasphemies of Muhammad against the faith of Our Lord Jesus Christ. There can now be visited famous places which are in the district of Saphet, like the well of Joseph, where he was sold by his brothers, and the city of Capernaum which is on the borders of Zabulon and Naphtali, where Our Lord Jesus Christ lived and began his preaching and personally performed many miracles and where Peter paid the tribute of a stater found in the mouth of a fish for himself and for the Lord Jesus Christ and where Matthew sat at the customs, whence he was taken to become an apostle.

Likewise near there on a mountain towards Tiberias is the place where, with five barley loaves and twelve fishes Our Lord satisfied 5,000 men, with twelve baskets of pieces left over. Near there is the place where Jesus showed himself to His disciples and ate with them as is read in the Gospel for the fourth Sunday after Easter and that is the place commonly called the Table of the Lord where there is a church and a solemn pilgrimage. Again nearby, by the Sea of Tiberias, is the village called Bethsaida, where Peter and Andrew, Philip and James the Less were born and where Christ chose Peter and Andrew and the two sons of Zebedee to be Apostles. Again near there by the Sea of Tiberias towards Tiberias City is the place called Magdalon, where it is said Mary Magdalene was born. Places even more holy, like Nazareth, Mount Tabor, Cana of Galilee and many others can be visited more freely and securely because of the building of the castle of Saphet. Because of this, it can be seen how much was diminished and carried off from the infidel Saracens and how much Christianity grew and expanded because of the construction and establishment of the castle of Saphet, because it was done to confound, to weaken and to hold back the infidel and to expand, multiply and comfort the faithful, to the honour of Our Lord Jesus Christ and the exaltation of the church of the Lord God. Amen.

NOTES

I PROLOGUE TO THE STUDY OF CRUSADER CASTLES

- 1 J. F. Michaud, *Histoire des Croisades* (7 vols., Paris, 1822) and *Bibliothèque des Croisades* (4 vols., Paris, 1829).
- 2 *Recueil des historiens des Croisades*, ed. Académie des Inscriptions et Belles-Lettres (14 vols., Paris, 1841-1906) reprint.
- 3 E. Viollet-le-Duc, *Essai sur l'architecture militaire au moyen-âge* (Paris, 1854); English trans., M. Macdermott, *An Essay on the Military Architecture of the Middle Ages* (Oxford, 1860, reprint Westport, Conn., 1977).
- 4 M. de Vogüé, *Les Eglises de la Terre Sainte* (Paris, 1860).
- 5 M. de Vogüé, *La Syrie centrale: architecture civile et religieuse* (Paris, 1865).
- 6 D. Pringle, *The Churches of the Crusader Kingdom of Jerusalem: A Corpus* I, A-K (Cambridge, 1993), 8.
- 7 For such biographical details as are available, P. Deschamps, *Les Châteaux des Croisés en Terre Sainte I: Le Crac des Chevaliers* (Paris, 1934), xi n. 1, and H. Bordeaux, *Voyageurs d'Orient* (Paris, 1926), 77-100. Even his name is something of a puzzle since he appears as Guillaume Rey, E. G. Ray, E. Rey and occasionally as Baron E. Rey. He combined his father's surname Guillaume with his mother's, Rey. At one stage he had hoped to inherit the title of Baron Rey which had been held by one of Napoleon's generals but there proved to be a closer claimant.
- 8 C. du Fresne du Cange, *Les Familles d'Outremer*, ed. E. G. Rey (Collection de Documents Inédits sur l'Histoire de France XVIII; Paris, 1869).
- 9 G. Rey, *Etudes sur les monuments de l'architecture militaire des Croisés en Syrie et dans l'île de Chypre* (Collection de Documents Inédits sur l'Histoire de France, Paris, 1871).
- 10 E. Rey, *Les Colonies franques de Syrie aux douzième et treizième siècles* (Paris, 1885; reprint, New York, 1972).
- 11 C. R. Conder and H. H. Kitchener, *The Survey of Western Palestine* (3 vols., London, 1881-3).
- 12 C. Clermont-Ganneau, *Archaeological Researches in Palestine during the Years 1873-1874* (2 vols., London, 1896-9).

- 13 M. van Berchem and E. Fatio, *Voyage en Syrie* (Mémoires de l'Institut Français d'Archéologie Orientale du Caire, Cairo, 1914).
- 14 T. E. Lawrence, *Crusader Castles*, ed. D. Pringle (Oxford, 1988), 37 n.8.
- 15 Paris, 1927.
- 16 2 vols., and 2 vols., plates, Paris, 1925.
- 17 Deschamps describes his appointment and his work at Crac in *Châteaux* II, vii-xxii (Avant-Propos).
- 18 For Chastel Pelerin and the excavations, see below pp. 124-7.
- 19 For Belvoir, see below pp. 58-61.
- 20 For a summary of this work with bibliographical details, see pp. 23-5 below.
- 21 D. Pringle, *Red Tower* (London, 1986).
- 22 See below, chapter 5.

2 FORTIFICATION IN THE WEST AND EAST BEFORE THE FIRST CRUSADE

- 1 This is not the place for a general bibliography of western European military architecture. S. Toy, *A History of Fortification from 3000 BC to AD 1700* (London, 1955) remains a useful attempt at a general synthesis. The literature on English castles is very well developed: for helpful introductions see for examples R. A. Brown, *English Castles* (London, 1976), C. Platt, *The Castle in Medieval England and Wales* (London, 1982) and M. W. Thompson, *The Rise of the Castle* (Cambridge, 1991), all of which describe the architectural evolution. For other aspects see N. J. G. Pounds, *The Medieval Castle in England and Wales: A Social and Political History* (Oxford, 1991) and for contemporary but different developments in Scotland, S. Cruden, *The Scottish Castle* (Edinburgh, 1960). On French castles see the important study by G. Fournier, *Le Château dans la France médiévale: essai de sociologie monumentale* (Paris, 1976). For an architectural introduction the inadequate J.-F. Fino, *Fortresses de la France médiévale* (Paris, 1970) has been superseded by the excellent J. Mesqui, *Châteaux et enceintes de la France médiévale* (vol. I, Paris, 1991). See also the well-illustrated *Atlas des châteaux forts en France*, ed. C.-L. Salch (Strasbourg, 1977).
- 2 H. Collin, 'Les plus anciens châteaux de la région de Nancy en Lorraine', in *Château Gaillard* 3 (1966), 26-38.
- 3 P. Hoffsummer, A. Hoffsummer-Bosson and B. Wery, 'Naissance, transformations et abandon de trois place-fortes des environs de Liège: Chevreumont, Franchimont et Logne', *Château Gaillard* 13 (1986), 63-79.
- 4 M. Bur, 'Recherches sur les plus anciennes mottes castrales de Champagne' *Château Gaillard* 9-10 (1978-80), 55-69.
- 5 M. Fixot, 'A la recherche des formes les plus anciennes de la fortification privée en France', *Château Gaillard* 9-10 (1978-80), 389-406.
- 6 For a general discussion see D. Matthew, *The Norman Kingdom of Sicily* (Cambridge, 1992), 257-9; for a brief investigation of three examples, A. J. Taylor, 'Three early castle sites in Sicily, Motta Camastra, Sperlinga and Petralia Soprana', *Château Gaillard* 7 (1976), 209-11.
- 7 For general surveys of Byzantine military architecture see A. W. Lawrence, 'A skeletal history of Byzantine fortification', *Annual of the British School in Athens* 78 (1983), 171-227, and the interesting but not entirely reliable *Byzantine Fortifications: An Introduction* by C. Foss and D. Winfield (Pretoria, 1986). See also Foss, *Survey of Medieval Castles of Anatolia: Kutahya* (British Archaeological Reports, International Series 261: Oxford, 1985) and the review by R. W. Edwards

- in *Speculum* 62 (1987), 675-80. The issue of Byzantine influence on Crusader fortification has been bedevilled by lack of evidence on the Byzantine side. When discussing Byzantine parallels both Deschamps (*Châteaux* I, 45-57) and T. E. Lawrence (*Crusader Castles*, 25-34) were obliged to rely on C. Diehl, *L'Afrique byzantine* (Paris, 1896), refusing to allow themselves to be discouraged by the fact that the fortifications described there were constructed half a millennium before and a thousand miles away and could not possibly have been known to any of the Crusader castle builders. There is still a great deal of uncertainty about Byzantine fortifications. For the walls of Constantinople, see D. van Millingen, *Byzantine Constantinople: The Walls of the City and Adjoining Historical Sites* (London, 1899) and Foss and Winfield, *Byzantine Fortifications*, 41-77.
- 8 For the siege of Nicaea, S. Runciman, *A History of the Crusades* (3 vols., Cambridge, 1951) I, 177-81 and R. Randall, *Latin Siege Warfare in the Twelfth Century* (Oxford, 1992), 16-25. For the walls of Nicaea, A. M. Schneider, *Die Stadtmauer von Iznik (Nicaea)* (Istanbuler Forschungen, 9; Berlin, 1938) and Foss and Winfield, *Byzantine Fortifications*, 79-120.
 - 9 Runciman, *History* I, pp. 213-35; Rogers, *Siege Warfare*, 25-39.
 - 10 Foss and Winfield, *Byzantine Fortifications*, 13-15.
 - 11 T. Sinclair, *Eastern Turkey: An Architectural and Archaeological Survey* (4 vols., London, 1990), IV, 244-8.
 - 12 See below, pp. 79-84.
 - 13 See below, pp. 84-96.
 - 14 R. W. Edwards, *The Fortifications of Armenian Cilicia* (Dumbarton Oaks, 1987), 161-7.
 - 15 Edwards, *Armenian Cilicia*.
 - 16 Edwards, *Armenian Cilicia*, 65-72.
 - 17 J. B. Segal, *Edessa, 'The Blessed City'* (Oxford, 1970), 236 n. 1 and plate 5b.
 - 18 The best survey of Muslim fortification remains K. A. C. Creswell, 'Fortification in Islam before 1250', *Proceedings of the British Academy* (1952), but this needs to be updated in the light of recent research.
 - 19 Benvenisti, *Crusaders*, 326-31.
 - 20 For a full description, K. A. C. Creswell, *The Muslim Architecture of Egypt* (Oxford, 1952-9) I, 161-217.
 - 21 A. Bazzana, P. Cressier and P. Guichard, *Les Châteaux ruraux d'al-Andalus* (Madrid, 1988).
 - 22 For a general discussion of Muslim fortification in Syria in this period, T. Bianquis, 'Les frontières de la Syrie au XI^e siècle', *Castrum* 4 (1992), 135-49. On Akkar, P. Deschamps, *Les Châteaux des Croisés en Terre Sainte III: la défense du comté de Tripoli et le principauté d'Antioche* (Paris, 1973), 307.
 - 23 Deschamps, *Châteaux* III, 335-6.
 - 24 Deschamps, *Châteaux* III, 339-40 where van Berchem's plan is reproduced.
 - 25 P. E. Cheveddin, 'Citadel of Damascus' (unpublished PhD thesis, University of California, Los Angeles) I, 27-9.

3 CASTLES OF THE TWELFTH-CENTURY KINGDOM OF JERUSALEM

- 1 Runciman, *Crusades* I, 219, 228; Rogers, *Latin Siege Warfare*, 30-3.
- 2 Fulcher of Chartres, *History of the Expedition to Jerusalem*, trans. F. R. Ryan (New York, 1969), 150.
- 3 Runciman, *Crusades* II, 76-7.

- 4 Pringle, *Churches I*, 223-4.
- 5 Pringle, *Red Tower* (London, 1986), 40.
- 6 For the Citadel in Crusader times see C. N. Johns, 'The Citadel, Jerusalem' *Quarterly of the Department of Antiquities in Palestine* 145 (1950), 163-70.
- 7 Quoted in Johns, 'Citadel', 164.
- 8 There is no full publication of the castle at Montreal. It is discussed briefly, without a plan, in P. Deschamps *Les Châteaux des Croisés en Terre Sainte II: la défense du royaume de Jerusalem* (Paris, 1939), 42-4. The circumstances of the construction of the castle (but not its architecture) have recently been discussed in detail by Mayer in *Die Kreuzfahrerherrschaft Montreal (Sobak)* (Wiesbaden, 1990), 38-49.
- 9 Quoted by Deschamps (*Châteaux II*, 42 n. 3) and Mayer (*Montreal*, 47).
- 10 Deschamps, *Châteaux II*, 43; *Magister Thietmar Peregrinatio*, ed. J. C. M. Laurent, in *Peregrinatores medii aevi quatuor* (Leipzig, 1873), 37. The castle belonged to the Sultan of Egypt but the 'vidua Gallica' who put up and helped Thietmar lived in the *suburbana* inhabited by both Muslims and Christians: presumably her husband had been a member of the Frankish garrison in 1188.
- 11 M. R. Savignac, 'Notes de voyage', *Revue Biblique* 41 (1932), 597: see also Deschamps, *Châteaux II*, 43.
- 12 Li Vaux Moise (Arabic al-Wu'ayrah) has been the subject of investigation recently by Marino and his team. This work is conveniently summarised in *The Crusader Settlement in Petra in Fortress 7* (1990), 3-11. The castle was rediscovered by M. R. Savignac and published for the first time in 'Ou'airah', *Revue Biblique* 12 (1903), 114-20 and Deschamps, who never visited the site, simply refers to this. The history of the site is discussed by Mayer (*Montreal* passim but especially 188-91).
- 13 William of Tyre, *Chronicon*, ed. R. B. C. Huygens (Corpus Christianorum, Continuatio Medievalis, LXIII and LXIII A, Turnholt, 1986); English trans., E. A. Babcock and A. C. Krey, *A History of Deeds Done beyond the Sea* (2 vols., New York, 1976). References are to book and chapter, which have the same numbering in both text and translation (up to 21.9 after which the translation is one chapter behind): 16.6.
- 14 Mayer, *Montreal*, 184.
- 15 The castle at el-Habis is described, with plans by Hamond, *The Crusader Fort on El-Habis at Petra* (Middle East Center, University of Utah, Research Monograph No. 2, 1970). Hamond believes this is Crusader work but cf. Mayer, *Montreal*, 205-6.
- 16 Mayer, *Montreal*, pp. 205-6.
- 17 This issue is discussed with full bibliographical details by Mayer (*Montreal*, 52-4) whose conclusions I am inclined to accept. No trace of Crusader Aqaba has been located but it is worth noting that the southern end of the eastern wall of the surviving Mamluke fort shows traces of older, rougher masonry work. It is possible that this represents a fragment of the Crusader fortress.
- 18 Fulcher of Chartres, 282 and n. 1. The identification, without any evidence, is given in Rey, *Colonies franques*, 524.
- 19 William of Tyre, 14.8.
- 20 William of Tyre, 14.22; see J. Prawer, *The Latin Kingdom of Jerusalem* (London, 1972), 297-9 and M. Benvenisti, *The Crusaders in the Holy Land* (Jerusalem, 1970), 185-9, 205 for the castles around Ascalon and Pringle, *Churches I*, 95 for Bethgibelin in particular.

- 21 William of Tyre, 15.24.
- 22 William of Tyre, 15.25.
- 23 William of Tyre, 17.12.
- 24 William of Tyre, 20.19.
- 25 William of Tyre, 15.25.
- 26 J. S. C. Riley-Smith, *The Knights of St John in Jerusalem and Cyprus 1050-1310* (London, 1967), 435-7; Pringle, *Churches*, 95-101.
- 27 Rey, *Architecture militaire*, 123-5; see also Benvenisti, *Crusaders*, 205.
- 28 Quoted from the chronicle of Ernoul by A. Forey, *The Military Orders* (London, 1992), 59-60.
- 29 D. Pringle, 'Towers in Crusader Palestine', *Château Gaillard* 16 (forthcoming).
- 30 Pringle, *Churches* I, 150-2.
- 31 Pringle, *Churches* I, 123.
- 32 Pringle, *Red Tower*; for landholding in this area see S. Tibble, *Monarchy and Lordships in the Latin Kingdom of Jerusalem 1099-1291* (Oxford, 1989), 103-52.
- 33 D. Pringle, 'Survey of castles in the Crusader Kingdom of Jerusalem, 1989: a preliminary report', *Levant* 23 (1991), 87-91, 90; Benvenisti, *Crusaders*, 194-6; Tibble, *Monarchy and Lordships*, 45-6.
- 34 Z. Razi and E. Braun, 'The lost Crusader castle of Tiberias', in B. Z. Kedar (ed.), *The Horns of Hattin* (Jerusalem and London, 1992), 217-27. Galilee and its lordships are discussed in Tibble, *Monarchy and Lordships*, 13-23, 152-68.
- 35 Deschamps, *Châteaux* II, 100-1.
- 36 Deschamps, *Châteaux* II, pls. xxviii-xxx.
- 37 Deschamps, *Châteaux* II, 119-20; Tibble, *Monarchy and Lordships*, 163.
- 38 William of Tyre, 11.5.
- 39 Deschamps, *Châteaux* II, 117-18; see also Rey, *Architecture militaire*, 141-2; Tibble, *Monarchy and Lordships*, 13-23; Pringle, 'Survey', 89.
- 40 There is a full account with plans and illustrations in Deschamps, *Châteaux* II, 176-208. See also Rey, *Architecture militaire*, 127-39, R. C. Smail, *Crusading Warfare* (Cambridge, 1956), 221-2, and Müller-Wiener, *Castles*, 62-3. When I visited the castle in 1964 it was much as Deschamps described. Since then it has been the focus of considerable military activity, especially during the Israeli invasion of Lebanon in 1982, and there seems to be no published information about the present state of the monument.
- 41 The story is recounted with full references to the sources in Deschamps, *Châteaux* II, 182-7.
- 42 The building of the castle is described in Mayer, *Montreal*, 115-19. The fullest description of the architecture remains Deschamps, *Châteaux* II, 80-98. See also Smail, *Crusading Warfare*, 218-21 and Müller-Wiener, *Castles*, 47-8. For the most recent comments and additional bibliography, Pringle, *Churches* I, 286-91.
- 43 William of Tyre, 22.29 (29 in trans.).
- 44 It is possible that fire signals were used to communicate with Jerusalem but for a sceptical view of this see Mayer, *Montreal* excursus xii, 271-2.
- 45 William of Tyre, 22.29-31 (28-30 in trans.).
- 46 Deschamps, *Châteaux* II, 102-16. The best account, with plans and illustrations, is D. Nicolle, 'Ain al-Habis. The Cave de Sueth', *Archéologie Médiévale* 18 (1988), 113-40. I am grateful to Professor B. Hamilton for drawing this article to my attention.
- 47 William of Tyre, 22.22 (21 in trans.).
- 48 Deschamps, *Châteaux* II, 210-20.

- 49 For the beginnings of the Templars see Forey, *The Military Orders*, 6-17.
- 50 P. 31. See Benvenisti, *Crusaders*, 313-16; Pringle, 'Survey of castles', 90-1.
- 51 Pringle, 'Survey of castles', 89.
- 52 For a full discussion of La Fève see B. Z. Kedar and D. Pringle, 'La Fève: a Crusader castle in the Jezreel Valley', *Israel Exploration Journal* 35 (1985), 164-79.
- 53 Benvenisti, *Crusaders*, 324-5, 327.
- 54 Pringle, 'Towers'.
- 55 The evidence for Le Chastellet is presented in Deschamps, *Châteaux* II, 129-33; see also William of Tyre 21.29 and Forey, *Military Orders*, 62.
- 56 The early history of the Hospitallers is covered in detail in Riley-Smith, *The Knights of St John*, 32-59 and more generally in Forey, *Military Orders*, 17-23.
- 57 Pringle, *Red Castle*, 56; Tibble, *Monarchy and Lordships*, 67-8.
- 58 Only preliminary reports of the excavations have been published: R. P. Harper and D. Pringle, 'Belmont castle: a historical notice and preliminary report of excavations in 1986', *Levant* 20 (1988), 101-18 and R. P. Harper and D. Pringle, 'Belmont castle 1987: second preliminary report of excavations', *Levant* 21 (1989), 47-62.
- 59 Excavations between 1963 and 1968 have made older accounts of the castle obsolete. Unfortunately, the excavations have never been fully published but good general accounts of the building can be found in Benvenisti, *Crusaders*, 294-300 and Prawer, *Latin Kingdom*, 300-7. Note also the recent discussion of the chapel in Pringle, *Churches*, 120-2.
- 60 The decline of secular lordships throughout the twelfth century is a major theme of Tibble, *Monarchy and Lordships*.

4 TWELFTH-CENTURY CASTLES IN THE NORTHERN STATES

- 1 Deschamps, *Châteaux* III, 136-7.
- 2 Deschamps, *Châteaux* III, 293-5, 367-71. W. Müller-Wiener, *Castles of the Crusaders* (London, 1966), 42-3 gives the best plan.
- 3 William of Tyre, 10.26. For the most recent study of the archaeology of the castle, H. Salamé-Sarkis, *Contributions à l'histoire de Tripoli et de sa région à l'époque des Croisades* (Paris, 1980). Deschamps (*Châteaux* III, 367-71) argued that the Fatimid shrine was in fact an octagon constructed as the mausoleum of Raymond: Salamé-Sarkis has now shown this to be mistaken, although Raymond may well have been buried at the site.
- 4 Rey, *Architecture militaire*, 115-21; van Bercham and Fatio, *Voyage*, 108-10; Deschamps, *Châteaux* III, 203-15; Müller-Wiener, *Castles*, 64-5.
- 5 See the discussion of donjons in Pringle, *Red Tower*, 15-18.
- 6 Deschamps, *Châteaux* III, 297-301.
- 7 Deschamps, *Châteaux* III, 307-9 is the only account of this castle. There is no adequate published plan. I have not been able to visit because of disturbed conditions in the Lebanon.
- 8 Deschamps, *Châteaux* III, 313-16; Müller-Wiener, *Castles*, 53.
- 9 Pringle, *Red Tower*.
- 10 Deschamps, *Châteaux* III, 317-19; Müller-Wiener *Castles*, 52; Pringle, *Red Tower*, 16-18.
- 11 See Rey, *Architecture militaire*, 101-2; Deschamps, *Châteaux* III, 327-9 reproduces Rey's section and adds a number of other names to the corpus of small towers in the county of Tripoli. The architecture and distribution of these small castles deserves further research.

- 12 Van Berchem and Fatio, *Voyage*, 131-5; Deschamps, *Châteaux III*, 311-12. Unfortunately, I have not been able to visit this site.
- 13 For the best description of the disappointing remains see Sinclair, *Eastern Turkey IV*, 244-8.
- 14 The history and properties of the family are fully discussed in Deschamps, *Châteaux III*, 191-9. The castle at Margat is described below, pp. 163-79.
- 15 The castle is described by Deschamps, who never seems to have been there (*Châteaux III*, 345-9) on the basis of work done by G. Saade; neither plan nor photographs are entirely satisfactory.
- 16 Van Berchem and Fatio, *Voyage*, 241-51; Deschamps, *Châteaux III*, 351-7; Sinclair, *Eastern Turkey IV*, 261-6.
- 17 Rey, *Architecture militaire*, 105-13 gives the earliest important description with interesting drawings and an inadequate plan. See also van Berchem and Fatio, *Voyage*, 267-83; Deschamps, *Châteaux III*, 217-47; Fedden and Thompson, *Crusader Castles*, 79-84; Müller-Wiener, *Castles*, 44-5; Pringle, *Red Tower*, 18-19.
- 18 G. Saade, 'Histoire du château de Saladin', *Studi Medievali*, 3rd series, 9 (1968), 980-1016.
- 19 The story is recounted in Deschamps, *Châteaux III*, 231 who remarks, 'Cet épisode n'est pas un des moins émouvants de l'épopée des Croisades si fertile en événements tragiques.'
- 20 Crusader castles in the County of Edessa (or the lack of them) are discussed in H. Hellenkemper, *Burgen der Kreuzritterzeit in der Grafschaft Edessa und in Königreich Kleinarmenien* (Bonn, 1976) and Sinclair, *Eastern Turkey IV*, 1-228, neither of whom found evidence of surviving Crusader building.
- 21 Edwards, *Armenian Cilicia*, 69-70. Edwards discusses other possible Crusader work on pp. 31-3.

5 SIEGE WARFARE IN THE CRUSADER LANDS

- 1 The hardships suffered by the besiegers at Antioch are described in *Gesta Francorum* (ed. and trans. R. Hill, London, 1962), 30-3, 35, and Raymond of Aguilers, *Historia francorum* (trans. J. H. Hill and L. L. Hill, Philadelphia, 1968), 33, 35. For the problems of thirst at the siege of Jerusalem, *Gesta francorum*, 88, Raymond of Aguilers, 118-19.
- 2 See below, p. 197.
- 3 Ibn al-Furat, *Ta'rikh al-duwal wa'l-muluk*, ed. and trans. U. and M. C. Lyons as *Ayyubids, Mamlukes and Crusaders* with introduction and notes by J. S. C. Riley-Smith (2 vols., Cambridge, 1971) II, 127.
- 4 Pringle, *Red Tower*, 47, 66-7; for a general survey of castle water-supplies, Deschamps, *Châteaux I*, 90-3.
- 5 Rey, *Architecture militaire*, 101.
- 6 Abu Shama, Abd al-Rahman b. Isma'il, *Kitab al-rawdatayn* (ed. with French trans., *Recueil des historiens des Croisades: historiens orientaux* 5 vols. (Paris, 1898), IV, 380-1.
- 7 Baha' al-Din Yusuf b. Rafi' known as Ibn Shaddad, *Nawadir al-Sultaniyah wa'l-Mahasin al-Yusifiyah* (ed. with French trans., *Recueil des historiens des Croisades: historiens orientaux III*, 3-370 (Paris, 1884), 118; English trans., C. W. Wilson, *The Life of Saladin* (Palestine Pilgrims Text Society, London, 1897), 138.
- 8 See the table in C. Marshall, *Warfare in the Latin East*, 1192-1291 (Cambridge, 1992), 243-5.

- 9 Baha al-Din, 104-6, 119-20.
- 10 William of Tyre, 14.28.
- 11 According to William of Tyre (22.29); Ernoul, *Chronique d'Ernoul et de Bernard le Trésorier*, ed. L. De Mas-Latrie (Paris, 1871), 104, on the other hand, says that Raynald of Chatillon, lord of Kerak, knew that supplies were very low.
- 12 *L'estoire de Eracles Empereur in Recueil des historiens des Croisades: historiens occidentaux II* (Paris, 1859), 104-5. The translation is made from the Lyon MS (MS D in the RHC edition) on the importance of which see M. R. Morgan, *The Chronicle of Ernoul and the Continuations of William of Tyre* (Oxford, 1973); Deschamps, *Châteaux II*, 73.
- 13 See Suger, *Vita Ludovici grossi regis* (ed. with French trans. by H. Wacquet, Paris, 1964), 136-41.
- 14 For siege warfare, R. Rogers, *Latin Siege Warfare in the Twelfth Century* (Oxford, 1992); for Geoffrey the Fair, J. Harvey, *The Medieval Architect* (London, 1972), 208-9.
- 15 For siege warfare on the First Crusade and afterwards, Rogers, *Siege Warfare*, 10-89. For eyewitness accounts of the siege of Antioch, Raymond of Aguilers, 30-50, and *Gesta Francorum*, 28-48; for Jerusalem, Raymond of Aguilers, 116-28, and *Gesta Francorum*, 87-93.
- 16 For the siege of Acre, Rogers, *Siege Warfare*, 212-36; Baha al-Din, 188, trans., 214, 250; Marshall, *Warfare*, 228-9.
- 17 William of Tyre, 15.18. Usamah b. Munqidh, *Kitab al-I'tibar*, trans. P. Hitti as *Memoirs of an Arab-Syrian Gentleman* (New York, 1927), 102-3.
- 19 Fulcher of Chartres, 253-4.
- 19 Baha al-Din, 323-30, trans. 364-5.
- 20 Ibn al-Furat II, 92-3.
- 21 Deschamps, *Châteaux III*, 270-2, and below, pp. 177-8.
- 22 Abu Shama IV, 254.
- 23 Ibn al-Furat II, 70-1; D. J. Cathcart King, 'The taking of Le Krak des Chevaliers in 1271', *Antiquity*, 23 (1949), 92.
- 24 Abu Shama IV, 204.
- 25 William of Tyre, 14.28.
- 26 See most recently Marshall, *Warfare*, 213.
- 27 The literature on siege artillery is conveniently summarised (with illustrations) in Rogers, *Siege Warfare*, 254-73. Unfortunately Rogers was not aware of Cheveddin's work which would have clarified some of the problems discussed. See also P. E. Cheveddin, 'The Citadel of Damascus' (University of California, Los Angeles, 1986; unpublished PhD dissertation available on University Microfilms International) I, 277-89.
- 28 See Cheveddin, *Citadel I*, 278.
- 29 Ibn al-Furat II, 70-1.
- 30 Ibn al-Furat II, 73-80.
- 31 Ibn al-Furat II, 88-95.
- 32 Ibn al-Furat II, 108-12.
- 33 Deschamps, *Châteaux II*, 27-8.
- 34 Marshall, *Warfare*, 237.
- 35 Rogers, *Siege Warfare*, 212-36.
- 36 Ibn al-Furat II, 75; Deschamps, *Châteaux II*, 134.
- 37 William of Tyre, 18.1239; Marshall, *Warfare*, 236.
- 38 Johns, 'Excavations at Pilgrims' Castle'.

- 39 Deschamps, *Châteaux* I, 147-50, 164-6.
- 40 Marshall, *Warfare*, 234; Deschamps, *Châteaux* II, 66.
- 41 Marshall, *Warfare*, 235.
- 42 Vitruvius, *The Ten Books on Architecture*, trans. M. H. Morgan (London, 1914), 23.
- 43 Deschamps, *Châteaux* III, 235.
- 44 Ibn al-Furat II, 93. The meaning of *sata'ir* is discussed in Cheveddin, *Citadel* I, 194-7 who rejects the idea that wooden hoards were used in Muslim military architecture.
- 45 Deschamps, *Châteaux* III, 245, pls. xiii b. xvii a, xxviii a.
- 46 Deschamps, *Châteaux* III, 274, 281, pls. xl d, liv a.
- 47 Edwards, *Armenian Cilicia*, 15.
- 48 Deschamps, *Châteaux* III, 238; II, 203-4 and pl. lxix c.
- 49 See below, pp. 124-7, 190-8.
- 50 Tower P: Deschamps, *Châteaux* I, 185-7, pls. xlvii, xci, xcii.
- 51 See below, pp. 153-6.
- 52 Deschamps, *Châteaux* III, 240, pl. xxi c.
- 53 Deschamps, *Châteaux* III, 319.
- 54 Johns, 'Excavations at Pilgrims' Castle', 154.
- 55 Deschamps, *Châteaux* III, 255, pl. xxxv a, c.
- 56 Deschamps, *Châteaux* I, 256-7, pls. xl, xlii, xcvi.
- 57 Ibn al-Furat I, 90-1.
- 58 Ibn al-Furat I, 111.
- 59 Deschamps, *Châteaux* III, 271.

6 NOBLES, TEMPLARS AND TEUTONIC KNIGHTS IN THE THIRTEENTH CENTURY

- 1 For the text see Wilbrand of Oldenburg in Laurent, *Peregrinatores Medii Aevi Quatuor*, 166-7. There is a partial translation in T. S. R. Boase, *Castles and Churches of the Crusading Kingdom* (London, 1967), 65. A fuller and more accurate translation will soon be available in Pringle, 'Towers in Crusader Palestine'.
- 2 For Sidon see Rey, *Architecture militaire*, 153-9; Deschamps, *Châteaux* II, 224-33; Müller-Wiener, *Castles*, 69-71; most recently, H. Kalayan, 'The sea castle of Sidon', *Bulletin du Musée de Beyrouth* 26 (1973), 81-9.
- 3 Chastel Pelerin was first described by Rey (*Architecture militaire*, 93-100) and subsequently by Deschamps (*Châteaux* II, 24-33), who prints the text of the *Historia Damiatiana* account. However, these, and other early accounts, were made obsolete by C. N. Johns' excavations between 1930 and 1934. The results were never fully published but were partially made available in article form (see especially C. N. Johns, 'Excavations at Pilgrims' Castle, 'Atlit (1932)', *Quarterly of the Department of Antiquities in Palestine* 3 (1934). The excavator also produced a scholarly guidebook, C. N. Johns, *Guide to 'Atlit* (Jerusalem 1947), now extremely rare and all the more valuable because the site is now an Israeli naval base and completely inaccessible. I am grateful to Denys Pringle for letting me see his copy of this guide: there is also a copy in the library of the British School of Archaeology in Jerusalem. Later accounts of the castle are all based on Johns' work. For the most recent discussion with full bibliography see Pringle, *Churches* I, 69-80.
- 4 The fortifications are most fully described in Johns, 'Excavations (1932)'.

- 5 For Beaufort under the Templars, Deschamps, *Châteaux II*, 195-7.
- 6 The description of the building of the castle at Saphet has been edited by R. B. C. Huygens, 'Un nouveau texte du traité "De constructione castri Saphet"', *Studi medievali*, third series, 6(1) (1965), 355-87: English trans. H. Kennedy as appendix of this book. The archaeological remains and their interpretation are discussed by D. Pringle in 'Reconstructing the castle of Safad', *Palestine Exploration Quarterly* (1985), 141-9. For earlier accounts, see Lawrence, *Crusader Castles*, 66-9 and Deschamps, *Châteaux II*, 140-2.
- 7 Montfort was first described in Rey, *Architecture militaire*, 142-51. The excavations were published by B. Dean, 'The Exploration of a crusaders' fortress (Montfort) in Palestine', *Bulletin of the Metropolitan Museum New York* 22 (1927); Deschamps, *Châteaux II*, 138-40 (Deschamps seems to have been unaware of the excavations and merely reproduces Rey's inaccurate plan). The best recent discussion is D. Pringle, 'A thirteenth century hall at Montfort Castle in Western Galilee', *The Antiquaries Journal*, 66 (1986), 52-81. The castle at Judin has recently been surveyed by a team from the British School of Archaeology in Jerusalem: see D. Pringle, A. Petersen, M. Dow and C. Singer, 'Qal'at Jiddin: a Crusader and Ottoman castle in Galilee', *Levant* 26 (forthcoming) which also contains a good discussion of the military architecture, noting the German parallels.
- 8 Rey, *Architecture militaire*, 69-83 provides the earliest account accompanied by some fine drawings and a plan which includes features which have subsequently disappeared. The fortifications of the town are described in 211-14. Further notes and historical information are supplied in van Berchem and Fatio, *Voyage*, 320-34. See also Müller-Wiener, *Castles*, 50-1 and Deschamps, *Châteaux III*, 287-92. The remains have recently been surveyed and discussed by M. Braune in 'Die mittelalterlichen Befestigungen der Stadt Tortosa/Tartus', *Damaszener Mitteilungen*, 2 (1985), 44-54 and plates 17-21.
- 9 Rey, *Architecture militaire*, 85-92 and pl. 9 provides a description, a finely drawn cross-section and a plan which includes some outer works no longer extant. See also Müller-Wiener, *Castles of the Crusaders*.
- 10 I have followed the identifications given in Edwards, *Armenian Cilicia*, 99, 102 n.5. Deschamps, *Châteaux III*, 363-5 offers a different explanation and, as Edwards concedes, 'It is impossible to determine with certainty the Frankish name of Calan' and there is a possibility that it may have been La Roche Guillaume.
- 11 Müller-Wiener, *Castles*, 48-9, R. Edwards, 'Bagras and Cilician Armenia', *Revue des Etudes Arméniennes*, ns. 17 (1983), 415-55; Sinclair, *Eastern Turkey IV*, 266-71.
- 12 Edwards, *Cilician Armenia*, 99-102.
- 13 Edwards, *Cilician Armenia*, 253.

7 THE HOSPITALLERS IN TRIPOLI AND ANTIOCH

- 1 For the best general account of the Hospitallers in this period see Riley-Smith, *The Knights of St John*.
- 2 Pringle, *Red Tower*, 41-3.
- 3 Deschamps, *Châteaux I*, 118.
- 4 The classic account of Crac des Chevaliers is Deschamps, *Châteaux I*, perhaps the finest account of the archaeology and history of a single medieval castle ever written. For other descriptions see Rey, *Architecture militaire*, 39-67; van Berchem and Fatio, *Voyage*, 135-63; Fedden and Thomson, *Crusader Castles*, 84-90;

- Müller-Wiener, *Castles*, 59–62. The name Crac was originally written Crat and seems to have been a Frankish version of Akrad meaning Kurds. It seems to have become Crac by analogy with Kerak in Jordan, also spelt Crac in Crusader sources, which may in turn be derived from the Syriac *karka* meaning a fortress (Deschamps, *Châteaux I*, 112–13) and ‘Les deux Cracs des Croisés’, *Journal Asiatique* 209 (1937), 494–500. The fortress was known as Crac de l’Ospital in Crusader times and the name Crac des Chevaliers was first used by Rey in the mid-nineteenth century.
- 5 Deschamps, *Châteaux I*, 122.
 - 6 Deschamps, *Châteaux I*, 125–9; J. De Joinville, *The Life of St Louis*, trans. M. B. R. Shaw (Harmondsworth, 1963), 277; Ibn al-Furat, II, 140.
 - 7 Deschamps, *Châteaux I*, 124–5.
 - 8 Deschamps, *Châteaux I*, 129–32; Ibn al-Furat, II, 139.
 - 9 The best discussion of the siege is Cathcart King, ‘The taking of Le Crac des Chevaliers in 1271’. This substantially revises the account given in Deschamps, *Châteaux I*, 132–5.
 - 10 Deschamps, *Châteaux I*, 277–8.
 - 11 The issue is discussed by Van Berchem (*Voyage*, 143–4) who wrongly attributes the earliest Muslim examples at Aleppo and Damascus to the time of Baybars after 1260. Cheveddin (*Citadel I*, 275) makes it clear that such box machicolations, which he refers to as brattices, were an integral part of the defensive works erected by the Ayyubid Sultan al-‘Adil from 1203 onwards in the citadel at Damascus.
 - 12 Deschamps, *Châteaux I*, 148–50.
 - 13 Deschamps, *Châteaux I*, 290.
 - 14 See Deschamps, *Châteaux III*, 191–9 for a detailed discussion of the extent of these properties.
 - 15 Deschamps, *Châteaux III*, 265.
 - 16 Ibn al-Furat, II, 146–7.
 - 17 Deschamps, *Châteaux III*, 267.
 - 18 Deschamps, *Châteaux III*, 267.
 - 19 The fullest account is in Deschamps, *Châteaux III*, 259–85. See also Rey, *Architecture militaire*, 19–38, van Berchem, *Voyage*, 188–94, Müller-Wiener, *Castles*, 57–8.
 - 20 For the frescoes at Crac and Margat see J. Folda ‘Crusader frescoes at Crac des Chevaliers and Marqab Castle’, *Dumbarton Oaks Papers* 36 (1982), 17–210.
 - 21 Tour de l’Eperon; the name is given in contemporary sources (Deschamps, *Châteaux III*, 271 n. 1).
 - 22 Deschamps, *Châteaux III*, 270 n.8.

8 MUSLIM CASTLES OF THE TWELFTH AND THIRTEENTH CENTURIES

- 1 See above, pp. 18–20.
- 2 Cheveddin, *Citadel I*, 267–8.
- 3 Müller-Wiener, *Castles*, 65.
- 4 Müller-Wiener, *Castles*, 56.
- 5 Van Berchem, *Voyage*, 177–88; Müller-Wiener, *Castles*, 56.
- 6 C. N. Johns, ‘Medieval Ajlun’, *Quarterly of the Department of Antiquities in Palestine* 1 (1931), 21–33; Müller-Wiener, *Castles*, 58–9.
- 7 Cheveddin, *Citadel I*, 51–6, 62–3.
- 8 For important earlier studies of the Damascus citadel, J. Sauvaget, ‘La citadelle de Damas’, *Syria* 11 (1930), 59–90 and 216–41; D. J. Cathcart King, ‘The defences of

- the Citadel of Damascus', *Archaeologia* 94 (1951), 57-96; for the most recent work see H. Hanish, 'Der Nordwestturm der Zitadelle von Damaskus', *Damaszener Mitteilungen* 5 (1991), 181-231, who argues that the citadel as reconstructed by al-'Adil originally extended further to the northwest to make it a more regular rectangle.
- 9 Cheveddin, *Citadel* I, 274-90.
 - 10 Cheveddin, *Citadel* I, 277.
 - 11 Cheveddin, *Citadel* I, 20-9.
 - 12 Creswell, 'Fortification in Islam', fig. 15.
 - 13 Müller-Wiener, *Castles*, 67-8.
 - 14 Müller-Wiener, *Castles*, 54-5.
 - 15 This castle is considered as Crusader work, at least in part, by Deschamps (*Châteaux* II, 145-74) and Müller-Wiener (*Castles*, 45-6). This argument depends on the identification of Subeibe as the citadel of the nearby Crusader town of Banyas, which is mentioned in the chronicle sources for the twelfth century. However I am convinced by the arguments recently advanced by R. Ellenblum ('Who built Qal'at al-Subayba?', *Dumbarton Oaks Papers* 43 (1989), 103-12) who holds that this is an Ayyubid fortification, subsequently enlarged by the Mamlukes, and has no Crusader work at all.
 - 16 The literature on the Citadel at Aleppo is disappointing compared with its counterpart in Damascus: see van Berchem, *Voyage*, 210-18; Creswell, 'Fortification in Islam'; Müller-Wiener, *Castles*, 66-7; H. Gaube and E. Wirth, *Aleppo* (Wiesbaden, 1984).

9 CRUSADER CASTLES AND THE WEST

- 1 F. M. Powicke, *The Loss of Normandy* (Manchester, 1913), 290.

APPENDIX

- 1 This translation is based on the text edited with a good introduction by R. B. C. Huygens 'Un nouveau texte du traite "Du constructione castri Saphet"', *Studi Medievali* 3rd series, 6 (1) (1965), 355-87. I have been guided at several points by D. Pringle's review article, 'Reconstructing the castle of Safad', *Palestine Exploration Quarterly* 16 (1985), 139-49, which includes an important discussion of the archaeological evidence.
- 2 The futile expedition of 1239 is described in Runciman, *History of the Crusades* III, 21-5. The site of Saphet, in Muslim hands since December 1188, was returned to Christian control in the summer of 1240 under the terms of a truce between the Crusaders and Sultan Isma'il of Damascus.
- 3 I have translated *balestarii* as crossbowmen but they also handled larger crossbow-like engines and the term may be used to describe the men who operated all kinds of siege engines.
- 4 The shrine and monastery of the Virgin at Saidnaya, much rebuilt, still thrives about 30 km north of Damascus.
- 5 Qal'at Subeibe on the slopes of Mount Hermon, whose striking ruins were long considered to be partly Crusader but which is now thought to have been built by al-Aziz 'Uthman (the 'nephew of the Sultan' mentioned here) in 1228-30. See above, pp. 184-5.
- 6 The Templars.

- 7 This is one of the few recorded examples of the use of slave labour in the building of Crusader castles. The practice is not known from the twelfth century but slaves (captured Muslims) were used by the military orders in the thirteenth, when Crusader manpower was in very short supply. According to a Muslim source, Ibn al-Furat, there were a thousand Muslim captives. Seeing that there were less than 200 Franks at work on the project, they resolved to revolt but the plan was betrayed by Sultan Isma'il who alerted the Franks and the prisoners were all put to death (see Deschamps, *Châteaux* II, 141).
- 8 A comment more hopeful than realistic but it follows the generally optimistic tone of the whole pamphlet: there were very few Crusader military successes of any kind at this stage.
- 9 The intention of the author in this final section was to show that the area round Saphet, though not including Jerusalem or Bethlehem, was nevertheless truly Holy Land and therefore worthy of support by the faithful.

BIBLIOGRAPHY

- Abū Shāma, 'Abd al-Rahmān b. Isma'īl, *Kitāb al-rawḍatayn*, ed. with French trans. in *Recueil des historiens des Croisades: historiens orientaux*, vols. IV–V (Paris, 1898)
- Anon., *Gesta Francorum*, ed. and trans. R. Hill (London, 1962)
- L'estoire de Eracles Empereur*, in *Recueil des historiens des Croisades: historiens occidentaux*, vol. II (Paris, 1859)
- Bahā' al-Din Yusuf b. Rafī', known as Ibn Shaddad, *Nawādir al-sultāniyah wa'l-mahāsīn al-yūsufiyah*, ed. with French trans. in *Recueil des historiens des Croisades: historiens orientaux*, vol. III (Paris, 1898): English trans., C. W. Wilson, *The Life of Saladin* (Palestine Pilgrims Text Society, London, 1897)
- A. Bazzana, P. Cressier and P. Guichard, *Les Châteaux ruraux d'Al-Andalus* (Publications de la Casa de Velazquez, Madrid, 1988)
- M. Benvenisti, *The Crusaders in the Holy Land* (Jerusalem, 1970)
- M. van Berchem and E. Fatio, *Voyage en Syrie* (Mémoires de l'Institut Français d'Archéologie Orientale du Caire, Cairo, 1914)
- T. Bianquis, 'Les frontières de la Syrie au XI^e siècle', *Castrum* 4 (1992), 135–49
- T. Biller, 'Die Johanniterburg Belvoir am Jordan: zum frühen Burgenbau der Ritterorden im Heiligen Land', *Architectura: Zeitschrift für Geschichte der Baukunst/ Journal of the History of Architecture* (1989), 105–36
- T. R. Boase, *Castles and Churches of the Crusading Kingdom* (Oxford, 1967)
- H. Bordeaux, *Voyageurs d'orient* (Paris, 1926)
- J. Bradbury, *The Medieval Siege* (Woodbridge, 1992)
- M. Braune, 'Die mittelalterlichen Befestigungen der Stadt Tortosa/Tartus', *Damaszener Mitteilungen* 2 (1985), 44–54 and plates 17–21
- R. A. Brown, *English Castles* (London, 1976)
- M. Bur, 'Recherches sur les plus anciennes mottes castrales de Champagne', *Château Gaillard* 9–10 (1978–80), 55–69
- R. Burns, *The Monuments of Syria: An Historical Guide* (London and New York, 1992)
- C. Cahen, *La Syrie du nord à l'époque des Croisades* (Paris, 1940)
- C. du Fresne du Cange, *Les Familles d'Outremer*, ed. E. G. Rey (Paris, 1869)

BIBLIOGRAPHY

- D. J. Cathcart King, 'The taking of Crac des Chevaliers in 1271', *Antiquity* 23 (1949), 83-92
- 'The defences of the citadel of Damascus', *Archaeologia* 94 (1951), 57-96
- P. E. Cheveddin, 'The citadel of Damascus' (2 vols., unpublished PhD thesis, University of California at Los Angeles, 1986: available on University Microfilms International)
- C. Clermont-Ganneau, *Archaeological Researches in Palestine during the Years 1873-1874* (2 vols., London, 1896-9)
- H. Collin, 'Les plus anciens châteaux de la région de Nancy en Lorraine', *Château Gaillard* 3 (1966), 26-39
- C. R. Conder and H. H. Kitchener, *The Survey of Western Palestine* (3 vols., London, 1881-3)
- K. A. C. Creswell, *The Muslim Architecture of Egypt* (2 vols., Oxford, 1952-9)
- 'Fortification in Islam before A.D. 1250', *Proceedings of the British Academy* 38 (1952), 89-125
- S. Cruden, *The Scottish Castle* (Edinburgh, 1960)
- B. Dean, 'A Crusaders Fortress in Palestine (Montfort)', *Bulletin of the Metropolitan Museum of Art* (New York, 1927)
- P. Deschamps, *Les Châteaux des Croisés en Terre Sainte I: le Crac des Chevaliers* (Paris, 1934)
- Les Châteaux des Croisés en Terre Sainte II: la défense du royaume de Jerusalem* (Paris, 1939)
- Les Châteaux des Croisés en Terre Sainte III: la défense du comté de Tripoli et de la principauté d'Antioche* (Paris, 1973)
- 'Les deux Cracs des Croisés', *Journal Asiatique* 209 (1937), 494-500
- K. R. DeVries, *Medieval Military Technology* (Lewiston, NY, 1992)
- C. Diehl, *L'Afrique byzantine* (Paris, 1896)
- R. Edwards, 'Bagras and Armenian Cilicia', *Revue des Etudes Arméniennes* n.s. 17 (1983), 415-55
- The Fortifications of Armenian Cilicia* (Dumbarton Oaks, 1987)
- R. Ellenblum, 'Who built Qal'at al-Subayba?', *Dumbarton Oaks Papers* 43 (1989), 103-12
- C. Enlart, *Les Monuments des Croisés dans le Royaume de Jerusalem* (2 vols., Paris, 1926-7)
- Ernoul, *Chronique d'Ernoul et de Bernard le Trésorier*, ed. L. de Mas-Latrie (Paris, 1871)
- H.-P. Eydoux, *Les Châteaux du soleil: fortresses et guerres des Croisés* (Paris, 1982)
- R. Fedden and J. Thomson, *Crusader Castles* (London, 1957)
- J.-F. Fino, *Forteresses de la France médiévale* (Paris, 1970)
- M. Fixot, 'A la recherche des formes les plus anciennes de la fortification privée en France', *Château Gaillard* 9-10 (1978-80), 389-406
- J. Folda, 'Crusader frescoes at Crac des Chevaliers and Marqab Castle', *Dumbarton Oaks Papers* 36 (1982), 177-210
- A. Forey, *The Military Orders* (London, 1992)
- C. Foss, *Survey of Medieval Castles of Anatolia: Kutahya* (British Archaeological Reports, International Series 261: Oxford, 1985)
- C. Foss and D. Winfield, *Byzantine Fortification: An Introduction* (Pretoria, 1986)
- G. Fournier, *Le Châteaux dans la France médiévale: essai de sociologie monumentale* (Paris, 1976)

BIBLIOGRAPHY

- Fulcher of Chartres, *History of the Expedition to Jerusalem* (trans. F. R. Ryan, New York, 1969)
- H. Gaube and E. Wirth, *Aleppo* (Wiesbaden, 1984)
- P. C. Hamond, *The Crusader Fort on El-Habis at Petra* (Middle East Center, University of Utah, Research Monograph No. 2, 1970)
- H. Hanisch, 'Der Nordwestturm der Zitadelle von Damaskus', *Damaszener Mitteilungen* 5 (1991), 184-231
- R. P. Harper and D. Pringle, 'Belmont castle: a historical notice and preliminary report of excavations in 1986', *Levant* 20 (1988), 101-18
- 'Belmont castle 1987: second preliminary report of excavations', *Levant* 21 (1989), 47-61
- J. Harvey, *The Medieval Architect* (London, 1972)
- H. Hellenkemper, *Burgen der Kreuzritterzeit in der Grafschaft Edessa und im Königreich Kleinarmenien* (Bonn, 1976)
- P. Hoffsummer, A. Hoffsummer-Bosson and B. Wery, 'Naissance, transformations et abandons de trois place-fortes des environs de Liège: Chèvremont, Franchimont et Logne', *Château Gaillard* 13 (1986), 63-79
- R. B. C. Huygens, 'Un nouveau texte du traite "De constructione castri Saphet"', *Studi Medievali*, third series, 6(1) (1965), 355-87
- Ibn al-Furāt, *Ta'rik al-duwal wa'l-mulūk*, partial ed. and trans. U. and M. C. Lyons with introduction and notes by J. Riley-Smith, *Ayyubids, Mamlukes and Crusaders* (2 vols., Cambridge, 1971)
- C. N. Johns, 'Medieval Ajlun', *Quarterly of the Department of Antiquities in Palestine* 1 (1931), 21-33
- 'Excavations at Pilgrims' Castle, 'Atlit (1932)', *Quarterly of the Department of Antiquities in Palestine* 3 (1934) 152-64
- Guide to 'Atlit* (Jerusalem, 1947)
- 'The Citadel, Jerusalem', *Quarterly of the Department of Antiquities in Palestine* 14 (1950), 163-70
- J. de Joinville, *The Life of St Louis*, trans. M. B. R. Shaw (Harmondsworth, 1963)
- H. Kalayan, 'The sea castle at Sidon', *Bulletin du Musée de Beyrouth* 26 (1973), 81-9
- B. Z. Kedar and D. Pringle, 'La Fève: a Crusader castle in the Jezreel valley', *Israel Exploration Journal* 35 (1985), 164-79
- A. Kloner and D. Chen, 'Bet Govrin: Crusader church and fortifications', *Excavations and Surveys in Israel* 2 (1983), 12-13
- J. C. M. Laurent, *Peregrinatores medii aevi quatuor* (Leipzig, 1873)
- A. W. Lawrence, 'A skeletal history of Byzantine fortification', *Annual of the British School in Athens* 78 (1983), 171-227
- T. E. Lawrence, *Crusader Castles*, ed. D. Pringle (Oxford, 1988)
- L. Marini et al., 'The Crusader settlement in Petra', *Fortress* 7 (1990), 3-11
- C. Marshall, *Warfare in the Latin East, 1192-1291* (Cambridge, 1992)
- D. Matthew, *The Norman Kingdom of Sicily* (Cambridge, 1992)
- H. E. Mayer, *Die Kreuzfahrerherrschaft Montreal (Šobak)* (Wiesbaden, 1990)
- J. Mesqui, *Châteaux et enceintes de la France médiévale*, vol. I: *Les organes de la défense* (Paris, 1991)
- J. F. Michaud, *Histoire des Croisades* (7 vols., Paris, 1822)
- Bibliothèque des Croisades* (4 vols., Paris, 1829)
- D. van Millingen, *Byzantine Constantinople: The Walls of the City and Adjoining Historical Sites* (London, 1899)

BIBLIOGRAPHY

- M. R. Morgan, *The Chronicle of Ernoul and the Continuations of William of Tyre* (Oxford, 1973)
- W. Müller-Wiener, *Castles of the Crusaders* (London, 1966)
- D. Nicolle, 'Ain al-Habis. The Cave de Sueth', *Archéologie Médiévale* 18 (1988), 113-40
- C. Platt, *The Castle in Medieval England and Wales* (London, 1982)
- N. J. G. Pounds, *The Medieval Castle in England and Wales: A Social and Political History* (Cambridge, 1991)
- F. M. Powicke, *The Loss of Normandy* (Manchester, 1913)
- J. Prawer, *The Latin Kingdom of Jerusalem* (London, 1972)
- D. Pringle, 'Reconstructing the castle of Safad', *Palestine Exploration Quarterly* (1985), 141-9
- 'A thirteenth-century hall at Montfort Castle in Western Galilee', *The Antiquaries Journal* 66 (1986), 52-81
- Red Tower* (London, 1986)
- 'Survey of castles in the Crusader Kingdom of Jerusalem, 1989: a preliminary report', *Levant* 23 (1991), 87-91
- The Churches of the Crusader Kingdom of Jerusalem: A Corpus* vol. I, A-K (Cambridge, 1993)
- 'Towers in Crusader Palestine', *Château Gaillard* 16 (forthcoming)
- D. Pringle, A. Petersen, M. Dow and C. Singer, 'Qal'at Jiddin: a Crusader and Ottoman castle in Galilee', *Levant* 26 (forthcoming)
- Raymond of Aguilers, *Historia Francorum*, trans. J. H. and L. L. Hill (Philadelphia, 1968)
- Z. Razi and E. Braun, 'The lost Crusader castle of Tiberias', in B. Z. Kedar (ed.), *The Horns of Hattin* (Jerusalem and London, 1992), 217-27
- G. Rey, *Etudes sur les monuments de l'architecture militaire des Croisés en Syrie et dans l'île de Chypre* (Collection de Documents Inédits sur l'Histoire de France, Paris, 1871)
- Les Colonies franques de Syrie aux douzième et treizième siècles* (Paris, 1885; reprint, New York, 1972)
- J. Riley-Smith, *The Knights of St John in Jerusalem and Cyprus 1050-1310* (London, 1967)
- J. Riley-Smith (ed.), *The Atlas of the Crusades* (London, 1991)
- R. Rogers, *Latin Siege Warfare in the Twelfth Century* (Oxford, 1992)
- S. Runciman, *A History of the Crusades* (3 vols., Cambridge, 1951)
- G. Saade, 'Histoire du château de Saladin', *Studi Medievali* third series, 9 (1968), 980-1016
- H. Salamé-Sarkis, *Contributions à l'histoire de Tripoli et de sa région à l'époque des Croisades* (Paris, 1980)
- C.-L. Salch, *Atlas des châteaux forts en France* (Strasbourg, 1977)
- J. Sauvaget, 'La citadelle de Damas', *Syria* 11 (1930), 59-90, 216-41
- M. R. Savignac, 'Ou'airah', *Revue Biblique* 12 (1903), 114-20
- 'Notes de voyage', *Revue Biblique* 41 (1932), 581-97
- A. M. Schneider, *Die Stadtmauer von Iznik (Nicaea)* (Istanbul Forschungen 9: Berlin, 1938)
- J. B. Segal, *Edessa, 'The Blessed City'* (Oxford, 1970)
- T. A. Sinclair, *Eastern Turkey: An Architectural and Archaeological Survey*, vol. IV (London, 1990)
- R. C. Smail, *Crusading Warfare* (Cambridge, 1956)

BIBLIOGRAPHY

- The Crusaders in Syria and the Holy Land* (London, 1973)
- Suger, *Vita Ludovici grossi regis*, ed. with French trans., H. Wacquet (Paris, 1964)
- A. J. Taylor, 'Three early castle sites in Sicily', *Châteaux Gaillard* 7 (1975), 209-11
- M. W. Thompson, *The Rise of the Castle* (Cambridge, 1991)
- S. Tibble, *Monarchy and Lordships in the Latin Kingdom of Jerusalem, 1099-1291* (Oxford, 1989)
- S. Toy, *A History of Fortification from 3000 BC to AD 1700* (London, 1955)
- Usamah b. Munqidh, *Kitāb al-i'tibār*; English trans., P. K. Hitti, *Memoirs of an Arab-Syrian Gentleman* (Beirut, 1964)
- E. Viollet-le-Duc, *Essai sur l'architecture militaire au moyen-âge* (Paris, 1854); trans., M. Macdermott, *An Essay on the Military Architecture of the Middle Ages* (Oxford, 1860; reprinted Westport, Conn., 1977)
- Vitruvius, *The Ten Books on Architecture*, trans. M. H. Morgan (London, 1914)
- M. de Vogüé, *Les Eglises de la Terre Sainte* (Paris, 1860)
- La Syrie centrale: architecture civile et religieuse* (Paris, 1966)
- William of Tyre, *Chronicon*, ed. R. B. C. Huygens (Corpus Christianorum, Continuatio Medieualis, LXIII and LXIII A, Turnholt, 1986); English trans., E. A. Babcock and A. C. Krey, *A History of Deeds Done beyond the Sea* (2 vols., New York, 1941; reprint New York, 1976)

INDEX

Bold type indicates the main description of each site

- Abu'l-Fida, 164
 Abu Ghosh, 7
 Abu Shama, 9, 59
 Acre, 22, 32, 42, 61, 100, 103, 122, 124, 127, 128, 191
 al-'Adil: *see* al-Malik al-'Adil
 Agnes of Tripoli, 78
 Aimery de Limoges, patriarch of Antioch, 84
 Ajlun cas., 181
 Akkar cas., 7, 20, 49, 63, 67–8, 100, 109, 118
 Albert of Aix, 23
 Aleppo, 4, 18, 103, 116, 154, 157, 182, 184–5
 Alexander IV, Pope, 148
 Alexios Komnenos, 15
 Amalric de Francieu, 33
 Amanus mts, 142, 163
 Amman, 4
 Anatolia, 15
 Anavarza, 17, 97
 al-Andalus, 10, 19
 Andrew II, King of Hungary, 147
 Anjou, 12
 Ankara, 15
 Antioch, 1, 14, 15, 16, 21, 31, 44, 62, 64, 78, 84, 97, 98, 102, 113, 132, 143
 Anus, F., 3, 5, 6
 Apamea: *see* Qal'at al-Mudiq
 Aqaba, 21, 25, 30
 Arima cas., 68–73, 138, 141
 Armand du Perigord, Master of the Temple, 128, 192
 Armenia, military architecture, 17–19, 95, 114, 115, 116, 132, 142
 Arnun, 42
 Arsuf, 100, 110, 112, 113
 Ascalon, 18, 31, 32, 121
 Ashdod, 19
 Assassins, 75, 78, 147, 166, 167
 Athlit cas.: *see* Chastel Pelerin
 Atsiz b. Uvak, 20, 182
 Avars, 107
 Ayyubids 49, 96, 147, 181–4; *see also* Saladin and al-Malik al-'Adil *et al.*
 al-'Aziz 'Uthman, 184
 Baalbek, 6, 184
 Baghras cas.: *see* Gastun
 Baha al-Din, 9
 Bahram Shah, 184
 Bait Jubr al-Tahtani cas., 55
 Balatanos cas., 20, 85
 Baldwin I, king of Jerusalem, 13, 22–5, 40, 45, 56
 Baldwin II, king of Jerusalem, 30, 104
 Baldwin III, king of Jerusalem, 26, 31, 32
 Baldwin IV, king of Jerusalem, 52, 57
 Balian of Ibelin, 31, 38
 Banyas, 40, 42, 102, 184
 Bari cas., 186
 Barnard Castle cas., 188
 Baybars, Mamluke Sultan, 67, 78, 96, 100, 101, 105, 108–9, 110, 112, 118, 128, 129, 138, 148, 165, 185
 Bayeux Tapestry, 102, 184
 Beaufort cas., 6, 41–4, 45, 47, 49, 54, 93, 100, 109, 112, 116, 118, 122, 124, 127–8, 138, 179
 Beaumaris cas., 187
 Beeston cas., 187
 Beirut, 30, 64, 120
 Beisan: *see* Bet Shean
 Belek, 104, 113
 Belmont cas., 58–9, 61, 113, 145
 Belvoir cas., 8, 58–61, 78, 100, 101, 110, 111, 113, 121, 145, 187

INDEX

- Benoit d'Alignan, Bishop of Marseilles, 128, 184,
190-8
Berkhamsted, 186
Bertrand Mazoir, 79
Bertrand of St Gilles, 70-1
Bertrand, Count of Tripoli, 64
Bet Govrin: *see* Bethgibelin
Bethgibelin, 31, 32, 58, 145
Bethlehem, 33
Bet Shean, 39, 40
Bigard, Commandant, 7
Bikisrail cas., 78
al-Bira cas., 33
Blanchegarde cas., 31, 32
Bohemond II, prince of Antioch, 78
Bohemond III, prince of Antioch, 84
Bohemond IV of Antioch-Tripoli, 67, 129
Bohemond V of Antioch-Tripoli, 142
Bohemond VII of Antioch-Tripoli, 65
Bolingbroke cas., 187
Bolton cas., 92
Bordeaux, H., 7
Bosra cas., 20, 54, 114, 183-4, 185, 188
Bothwell cas., 175
Bouillon cas., 12, 13
Boulogne cas., 187
Bourzey cas., 7, 8, 15, 62, 79-84, 85, 96, 112, 113,
116, 118
Braune, M., 134
Buqai'ah, 145, 165
Burchard of Mt Zion, 67, 177
Burj Arab cas., 36, 76-8
Byblos, 4; *see also* Giblet
Byzantine military architecture, 14-18, 19, 31,
62-3, 78, 81-2, 85-7, 91, 95, 115, 157, 180

Caco, 35-7, 99
Caesarea, 8, 18, 33, 36, 61, 64, 75, 106, 108, 120
Cafarlet cas., 18
Cahen, C., 79
Cairo, 19, 114, 148, 182
Calan cas., 142
Calansue cas., 33, 35, 58, 99
Carcassonne, 115
Carisbrooke cas., 12
Carolingian fortification, 11, 13
Castel del Monte, 186
Castle Acre, 12
Castle Neroche, 12
Castle of Roger the Lombard, 35, 36
Castrum Arnaldi cas., 31, 32, 55
Catania cas., 186
Champagne, 2, 13
Chartres, 3
Chastel Blanc (Safita), 3, 7, 77, 99, 112, 117, 138-41,
143, 150, 164, 179
Chastel Neuf (Hunin), 42-3
Chastel Pelerin (Athlit), 1, 3, 6, 7, 37, 55, 56-7, 63,
99, 109, 111, 112, 114, 117, 118, 122, 124-7, 128,
134, 137, 143, 177, 185, 188
Chastel Rouge (Yahmur), 36, 72-5, 76, 78

Le Chastellet cas., 57, 106, 110, 113, 117, 140, 141
Chastiau dou Rei, 37-8, 129, 132
Châteaudun, 188
Château Gaillard, 115, 152, 186, 187, 188, 189
Château-sur-Epte, 115
Chepstow cas., 12
Cheveddin, P., 182
Chèvremont cas., 13
Clermont-Ganneau, C., 5
Colchester cas., 12
Coliath cas., 4, 78-9, 187
Conder, H., 4, 129
Constantinople, 2, 14, 15, 112
Corfe Castle, 188
Cosenza, 14
Coucy-le-Château, 175, 187, 189
Coupel, P., 7
Crac des Chevaliers, 3, 4, 5, 9, 10, 20, 21, 33, 45,
63, 67, 68, 72, 85, 93, 99, 100, 105, 109, 111, 113,
115, 116, 117, 124, 127, 129, 132, 133, 134,
146-63, 164, 165, 166, 169, 171, 179, 185, 187, 189
Cresson, spring of, 56
Creswell, K.A.C., 182
Cursat cas., 84, 132

Damascus, 2, 20, 40, 44, 109, 116, 118, 180, 181-2,
188
Daniel, Russian abbot, 22
Darum cas., 31, 103
Banu Daya of Shayzar, 181
Dayr al-Qal'ah cas., 30
Dead Sea, 21, 25, 45
Deschamps, P., 3, 5-7, 8, 10, 46, 75, 76, 79, 83, 85,
95, 115, 122, 154, 169
Le Destroit cas., 55, 56-7, 124-5
Dieulouard cas., 13
Dover cas., 186-7, 188
Du Bouard, M., 12
Du Cange, C. Du Fresne, 1, 3
Dussaud, R., 5, 7

Ecole des Chartes, 5
Edessa, 18, 19, 96, 114
Edom, 23, 25
Edward I, king of England, 37, 177, 187
Edwards, R., 17, 97, 116, 144
Eilat, 30
Embriaco family, 64-7
Enguerrand de Coucy, 187
Enlart, C., 5
Ernoul, 102
Etienne de Milly, 50

Fakhr al-Din, Amir, 121
Falaise cas., 188
Farnham cas., 188
Farimids, 19, 22, 27, 63, 66
Fatio, E., 4
Fedden, R., 85
Fère-en-Tardenois, 187, 188
La Fève cas., 55-6, 61, 124

INDEX

- Forbelet cas., 33
 Ford of Jacob's daughters, 57, 109
 Fossier, R., 189
 Framlingham cas., 187
 Franchimont cas., 13
 Frederick II, Emperor, 14, 121, 122, 129, 184, 186
 Al-Fula: *see* La Fève
 Fulcher of Chartres, 9, 22, 30, 62
 Fulk of Anjou, king of Jerusalem, 30-1, 37, 38, 43, 45, 101, 121
 Fulk Nerra, Count of Anjou, 12

 Galilee, 37, 38, 40, 42, 52, 55, 59, 129
 Garnier family, 33
 Gaston de Béarn, 102
 Gastun (Baghras) cas., 99, 100, 142-4
 Gautier d'Avesnes, 124
 Gaza, 31, 32
 Genoa, 64
 Geoffrey the Fair, Count of Anjou, 102
 Geoffrey of Flugeac, 33, 58
 Geoffrey de Joinville, 148
 Gesta Francorum, 22
 Gibelacar cas.: *see* Akkar
 Giblet (Byblos, Jubayl) cas., 7, 36, 64-7, 72, 99, 112, 124, 140
 Gioia del Colle cas., 186
 Gisors cas., 188
 Godfrey of Bouillon, 13, 21
 Gregory IX, Pope, 129
 Guy de Lusignan, king of Jerusalem, 44

 al-Habis cas., 28-30, 33, 121
 al-Habis Jaldak cas., 7, 40, 52-4
 Habonim: *see* Cafarlet
 Hama, 147, 182
 Hamdanids, 85
 Hardelot cas., 187
 Harim cas., 84, 180
 Harper, R., 8
 Hattin, battle of, 21, 27, 43, 45, 52, 56, 63, 65, 100, 101, 105, 120, 145, 147
 Hawran, 40
 Hebron, 22
 Hen Domen cas., 12
 Henry I, king of England, 115
 Henry II, king of England, 187
 Henry of Antioch, 147
 Hermann of Salza, 129
 Hermon, Mt, 42
 Hijaz, 23
 Hisham b. 'Abd al-Malik, caliph, 19
 Hisn al-Akrad: *see* Crac des Chevaliers
 Homs, 145, 147, 180
 Horsfeld, G. and A., 29
 Hospitallers, 1, 31, 32, 35, 54, 57-61, 67, 75, 79, 96, 100, 111, 113, 124, 127, 131, 138, 145-79
 Hugh, king of Cyprus and Jerusalem, 37
 Hugh of Payens, 57
 Hugh of St Omer, prince of Galilee, 40
 Hugh Revel, master of the Hospital, 148

 Hunin cas.: *see* Chastel Neuf

 Ibelin cas., 31, 32, 120
 Ibn al-Athir, 45, 71
 Ibn al-Furat, 115
 Ibn Jubayr, 40
 Ibn Shaddad, 82
 Ibrahim Pasha, 1, 7, 127
 Ile de Graye, 30
 Imad al-Din, 56, 106
 Isabel of Jerusalem, 52
 Isma'il, Sultan of Damascus, 127
 Isma'ilis: *see* Assassins
 Iven, knight of Kerak, 51
 'Izz al-Din al-Afram, 108, 109
 'Izz al-Din Usamah, 181

 Jaba cas., 33
 Jabala, 164
 Jacques de Vitry, 127, 190
 Jazirat Phar'un: *see* Ile de Graye
 Jerusalem, 18, 21, 22, 31, 32, 45, 55, 64, 98, 102, 103, 117, 121, 145
 Jisr al-Shughur, 81
 Johan von Sachsen, master of the Teutonic Knights, 129
 John, king of England, 188
 John of Ibelin, 120, 147
 John Tsimisces, Byzantine emperor, 82, 85
 Johns, C.N., 7, 8, 181
 Joinville, 148
 Jordan R., 21, 40, 42, 52, 181
 Joscelyn I, count of Edessa, 18
 Judin cas., 124, 131
 Julien of Sidon, 54, 122, 128

 Kafartab, 103
 Kalayan, H., 122
 Kerak cas., 6, 45-52, 61, 96, 99, 100, 101, 102, 106, 108, 111, 113, 114, 117, 118, 168
 Kharput cas., 104, 113
 Khurasan, 104
 King's Highway, 23, 25
 Kitchener, H.H., 4, 129, 184
 Korikos cas., 16, 112
 Kumushtakin, 183
 Kurds, 20

 Lamblin, F., 5
 Langeais cas., 12
 Latrun, 55, 124
 Lattakia, 6, 85
 Lawrence, T.E., 4, 10
 Le Mans, 3, 11
 Lisbon, 102, 107
 Litani R., 43
 Li Vaux Moise cas., 24-7, 30, 45
 London, Tower of, 12
 Lorgne, Nicholas, master of the Hospital, 111, 156, 177
 Lotharingia, 12-13, 22

INDEX

- Louis VI, king of France, 78, 102
Louis, IX, king of France (St Louis), 54, 106, 108,
121, 122, 138
Ludlow cas., 12
- Magna Mahumeria, 33
Malaicas cas., 20
al-Malik al-'Adil, 78, 118, 181-4, 188
al-Malik al-'Aziz, 181
al-Malik al-Mu'azzam, 106, 127
al-Malik al-Zahir, 95, 164, 184
Malue cas., 22
Mamlukes, 17, 23, 25, 37, 48, 49, 50, 96, 100, 129,
132, 134, 185
Maniqa cas., 20
Mankawar, amir, 96
Mardi b. 'Ali al-Tarsusi, 107, 108
Margat (Marqab), 3, 7, 9, 20, 21, 33, 63, 79, 85, 99,
100, 105, 113, 114, 115, 116, 117, 118, 124, 132,
134, 147, 150, 154, 163-79, 185
Marino, L., 8, 29
Marjayun, 44
Marqab: *see* Margat
Marshall, C., 9
St Mary of Josaphat, 52
St Mary Latin, 35
Matthew of Saone, 85
Maurice of Kerak, 45
Mayer, H.E., 29, 30
Mazoir family, 78-9, 85, 163, 164, 170, 173
Mecca, 50
Melfi cas., 186
Melissende, queen of Jerusalem, 33
Meuse R., 13
Mi'liya: *see* Chastiau dou Rei
Mirabel cas., 38
Moab, 23, 45, 46, 102
Mongols, 122, 128
Mons Glavianus cas., 30
Mons Peregrinus: *see* Tripoli
Montbazou cas., 12
Montdidier cas., 33, 36
Montferrand, 101, 106, 145, 147
Montfort cas., 38, 124, 129-31
Montolieu family, 75
Montreal cas., 22, 23-5, 45, 99, 102, 111
Montreuil-Bellay cas., 102
Montrichard cas., 30
Mousson cas., 13
Muhriz b. Akkar, 20
Müller-Wiener, W., 122
Munzenburg cas., 131
- Nabateans, 29
Nablus, 22
Napoleon III, 2
Nazareth, 56
Nephin, 66-7
Nicaea, 14
Normandy, 12
Nur al-Din, 67, 71, 110, 138, 180, 181, 182, 185
- Oliver, scholasticus of Cologne, 56, 124
Orontes R., 16, 62, 78, 80, 85, 97, 103, 131, 180
Ottoman, 38
Oultrejourdain, 21, 23-30, 45, 101, 120
- Pagan the Butler, 45
Palermo, 14
Palmyra, 6
Pembroke cas., 174, 188
Petra, 10, 25-30, 45
Pevensey cas., 11
Pierre de Queivilliers, 96
Pirie-Gordon, 4
Philip II, king of France (Augustus), 103, 174, 188
Philip Hurepel, count of Boulogne, 187
Philip of Nablus, lord of Kerak, 45
Pons, count of Tripoli, 78
Poussin, Lieutenant, 6
Prawer, J., 8
Prency cas., 13
Pringle, D., 4, 8, 33, 35, 36, 73, 128
Procopius, 112
Provence, 13
Le Puiset, 102
Puylaurens, 67
- Qadmus cas., 78
Qaimun cas., 22
Qalansuwah: *see* Calansue
Qal'at Mehelbe, 20
Qal'at al-Mina, 19
Qal'at al-Mudiq, 80
Qal'at Salah al-Din: *see* Saone
Qal'at Sanjil, 60
Qal'at al-Shaqif: *see* Beaufort
Qal'at Yahmur: *see* Chastel Rouge
Qaqun: *see* Caco
Qasr Bardawil, 40, 52
- Rafanea, 145
Rainhardus de Caro, constable of Saphet, 191
Rama, 33
Ramlah, 22
Ranulph de Blundeville, earl of Chester, 187
Raymond I, count of Tripoli, 22, 63, 64, 73, 113
Raymond II, count of Tripoli, 70-1, 75, 145
Raymond III, count of Tipoli, 54
Raymond de Pignans, constable of Crac, 147
Raymond of Poitiers, prince of Antioch
Raymond du Puy, master of the Hospital, 32, 146
Red Tower, 8, 33-4, 36, 72, 77
Renaud I Mazoir, 78
Renaud II Mazoir, 78
Rey, E.G., 1, 2-3, 4, 6, 8, 10, 66, 75, 76, 122
Reynald of Chatillon, 50
Reynald of Sidon, 43-4
Reynouard of Nephin, 67
Richard I, king of England, 103, 115, 148, 152
Richmond, 12
Riley-Smith, J., 32
Robert of Dreux, 187

INDEX

- Robert of Saone, 85
 Rochefort: *see* Bourzey
 La Roche de Guillaume, 142–3, 144
 La Roche de Roissol, 142–3, 144
 Rochester cas., 12, 186, 188
- Saadé, G., 8, 95
 Sa'd al-Din, Ayyubid amir, 52
 Safita: *see* Chastel Blanc
 Sahyun: *see* Saone
 Saidnaya, convent, 191
 Saladin, 38, 43–5, 50–4, 56, 57, 65, 71, 80, 82, 83–4, 95, 99, 100, 101, 102, 105, 106, 107, 110, 112, 113, 118, 120, 124, 128, 132, 136, 142, 146, 147, 164, 182
 Saladin's castle: *see* Saone
 San Marco Argentano cas., 14
 Saone cas., 1, 7, 8, 16, 21, 43, 45, 47, 49, 62, 66, 72, 82, 83, 84, 84–96, 99, 108, 111, 112, 114, 116, 117, 137, 140, 154, 168, 173
 Saphet (Safad) cas., 40, 54, 98, 99, 100, 101, 105, 109, 113, 124, 128–9, 132, 133, 138, 170, 179, 181, 187, 190–8
 Sardana, 85
 Savignac, M., 29
 Scandalion cas., 22
 Sela: *see* al-Habis
 Semois, R., 13
 Senlis, 11
 Sharon, plain of, 22, 33, 38, 73
 Shawbak: *see* Montreal
 Shayzar cas., 18, 180–1
 Sibylla of Antioch, 84
 Sicily, 13
 Sidon, 1, 43, 54, 61, 120, 121–4, 129, 142–3, 144
 Simon de Montceliart, 122
 Smail, R.C., 9
 Smyrna, 5
 Sourdes Fontaines, 38
 Subeibe cas., 181, 184, 185
 Sunqur, Mamluke amir, 96
 Syracuse cas., 186
- Tabor, Mt, 124
 Tancred, prince of Antioch, 38, 40
 Taqi al-Din, Ayyubid amir, 84
 Tartus: *see* Tortosa
 Tchalenko, G., 5
 Tell-Bashir cas., 96
 Templars, 31, 33, 54–7, 73, 109, 112, 124–9, 131, 132–44, 147, 152
 Terre de Calife, 73
- Terre de Suth, 40, 52
 Teutonic knights, 38, 54, 124, 129–32
 Thessaloniki, 107
 Thibault IV, count of Champagne, 127
 Thietmar, 25, 29
 Thoros of Armenia, 32
 Toron cas., 40, 55, 121
 Le Toron des Chevaliers (Latrun), 55, 124
 Tortosa cas., 113, 117, 118, 124, 132–8, 139, 147, 164, 177
 Tower of David, 22
 Trani cas., 186
 Trapesac cas., 105, 113, 142, 144
 Tripoli, 4, 8, 36, 62–4, 79, 106, 113, 132, 150, 179
 Tughtagin of Damascus, 40, 85
 Turks, Turkmen, 26–7, 30, 148
 Tyre, 18, 22, 40, 44, 54, 64
- Ugarit, 4
 Umayyads, 19
 Usamah b. Munqidh, 103–4, 180–1
 Uxo cas., 19
- Valenia, 164, 166
 Vasil of Edessa, 18
 Vaudémont cas., 13
 Vegetius, 102
 Vernon-sur-Seine cas., 188
 Villeneuve-sur-Yonne cas., 174, 188
 Viollet-le-Duc, E., 2, 3
 Vitruvius, 19, 114
 Vogüé, M. de, 2
- Wadi Arabah, 25
 Wadi Musa: *see* Li Vaux Moise
 Walter of Brienne, 147
 Warner de Gray, 22
 Wilbrand of Oldenburg, 78, 120, 133, 166
 William, patriarch of Jerusalem, 31
 William Marshal, 188
 William of Saone, 85
 William of Tyre, 9, 26, 32, 40, 45, 51–4, 62, 63, 103
 Wladislav II, king of Bohemia, 146
 Al-Wu'ayrah: *see* Li Vaux Moise
- Yahmur: *see* Chastel Rouge
 Yaqut, 19, 166
 Yarmuk R., 52
 York, 12
- Zahir al-'Umar, 42
 Zengi, 18, 96, 101, 106